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PARCEL 7

BOSTON MASSACHUSETTS

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JANUARY 1987

PROJECT PROPONENT
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BRA
Draft Environmental Assessment

Parcel 7: Boston, Massachusetts

Project Proponent:
Congress 7 Limited Partnership

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November 1986

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I. Summary

PARCEL 7 DEVELOPMENT

The Parcel 7 project proposes the development of a 57,900 square foot (1.33 acre) site located in the City of Boston. The project is bounded by Hanover, New Congress, New Sudbury and Blackstone Streets. The site is the last remaining major development parcel of the Government Center Urban Renewal Project initiated in the early 1960's. Parcel 7 is currently vacant, and is utilized as a parking lot.

The project will result in the development of a nine story, 113,150 gross square foot office building on the north half of the site, and a 19-story, 375 room hotel on the south. The ground floor of the project will feature hotel and office lobbies, retail space and a pedestrian arcade along New Congress Street. Four levels of underground parking will provide space for 375 cars.

Construction is anticipated to begin in the spring or summer of 1987 and take approximately 24 months to complete.

The site is directly adjacent to the historical Blackstone Block. The massing, materials and streetscape treatment of the Parcel 7 Development both reflect and reinforce the project's compatibility with this historic landmark.

PROPONENT

Congress 7 Limited Partnership

EIR STATUS

Draft

SUMMARY OF ENVIRONMENTAL ISSUES

The environmental effects of the Preferred Alternative, and No-Build Alternative are briefly described below. Chapter IV and the Appendices should be referenced for a more detailed discussion of these issues.

ALTERNATIVES

This analysis examines four alternatives. The project as planned along with a No-Build scenario are examined in the greatest level of detail. An alternative that features a program reduction of 40% of the hotel and office components and an alternative that eliminates the entire office building along with 99 hotel rooms are examined to determine their economic viability.

TRAFFIC AND PARKING

Travel demands created by the Parcel 7 Development have been estimated and analyzed in comparison with base conditions expected for the year 1989. The traffic study includes analyses of seven intersections: New Congress and New Sudbury Streets, New Sudbury and Blackstone Streets, Blackstone and North Streets, North and New Congress Streets, New Sudbury and Cambridge Streets, New Chardon and Merrimac Streets, and New Chardon and Blackstone Streets.

A detailed trip-generation estimation indicated that the development will result in 1,967 daily vehicle trips. The project will generate 192 vehicle trips during the AM peak hour, and 222 vehicle trips during the PM peak hour. All intersections analyzed will operate at acceptable service levels in 1989, with the exception of the North Street/Blackstone Street and the North Street/New Congress Street intersections. During Friday peak hours when the Haymarket is in operation, these two intersections will operate at or beyond capacity -- a condition which will exist with or without Parcel 7 development.

Mitigation measures to be utilized in minimizing congestion in the area could include better enforcement of parking regulations on Blackstone Street, restriction of peak-hour parking on the southbound side of New Congress Street, and traffic signal optimization. In addition, anticipated roadway improvements associated with long-range plans for depression of the Central Artery would improve traffic operations at the Blackstone Street/North Street intersection.

Parcel 7 Development will generate a parking demand of approximately 367 spaces, and will displace approximately 150 spaces currently on the project site. The project will accommodate all project related long term and short term parking demand with 375 on-site spaces.

AIR QUALITY

Ambient air quality was assessed by performing a microscale analysis of carbon monoxide (CO) concentrations at five of the intersections described above. The analysis examined existing 1986 conditions and No-Build and Build cases in the future year 1989.

Modeling results indicate that numerous violations of the National Ambient Air Quality Standards (NAAQS) currently exist at these intersections. In 1989 the maximum 1-hour and 8-hour CO concentrations will be below the NAAQS for both the No-Build and Build cases. It can be concluded from this analysis that the proposed development will not interfere with the attainment and maintenance of the NAAQS for CO.

TRANSIT FACILITIES

The subsurface Haymarket Station of the Massachusetts Bay Transportation Authority (MBTA) underlies approximately one-third of the Parcel 7 site, requiring special foundation elements to provide structural support for the proposed office building.

A proposed transfer system will involve the use of full-story cantilevered trusses at the second floor, supported by columns from the floor below. Preliminary studies indicate these columns, in turn, can be supported by the subway station's existing structural system. All construction activity will conform with MBTA requirements, and no interruption of service will result.

Also planned is a new entrance to the Haymarket subway mezzanine area, replacing the entrance stairs currently located on-site. This existing station entrance will remain operational until construction of the new entrance is completed.

SEWERAGE

Sewage to be generated by the planned project has been projected at 73,910 gallons per day. Project generated sewage would be conveyed to the Deer Island Treatment Plant via the East Side Interceptor, which is surcharged during periods of high tide when seawater enters the system and limits its hydraulic capacity. In order to avoid contributing to surcharged sewers during high-tide periods, the planned project will utilize storage tanks to hold sewage on-site until low-tide periods, during which sewage will be discharged into the public sewers by an automated pump system. The East Side Interceptor is currently being reconstructed to increase capacity, and is scheduled for completion in 1989.

Another factor affecting the capacity of area sewers is infiltration of groundwater into the system. However, the Boston Water and Sewer Commission has determined that correction of infiltration problems in the project area would not be cost-effective.

In 1981, the Boston Redevelopment Authority issued guidelines for the development of the project site. The relationship between the design of the project and the guidelines may be summarized as follows:

BRA Guideline	Parcel 7 Project
Uses	
Building uses which encourage activity at the ground level along Hanover, Congress and New Sudbury Street are desirable, with ground floor facades having active, retail uses.	The project program includes 10,000 square feet for ground-floor retail space along the New Congress and Hanover Street facades. Retail uses are envisioned as small specialty shops which will complement, rather than compete with, nearby commercial activities such as the Haymarket pushcarts and neighboring retail areas. In addition, the Hanover Street facade includes a glass and metal canopy above the ground floor retail shops along Hanover Street, reinforcing the market character of the street and providing the backdrop for the pushcart vendors, as well as providing shelter for use by Haymarket pushcarts in inclement weather, thereby interrelating that active use with the project.
Hotel use preferred on upper floors.	Hotel uses are included in the upper floors of the component on the Hanover Street side of the project parcel.
Office space up to 100,000 net rentable square feet is a desirable component	The project includes 113,000 net rentable square feet on the Sudbury Street end of the project parcel. Although the square footage in the project exceeds

in the development program and should be located on the New Sudbury Street end of the parcel.	the 100,000 threshold slightly, the massing of the office component is such that it appears to be of the size contemplated by the guidelines.
Public commercial parking component is not permitted, parking may be provided only for uses within the parcel.	Parking will be provided only for users of the project and not for the public in general.
No residential use will be allowed as part of the development.	The project does not include any residential uses.
The creation of open areas of intense activity (restaurant, cafe, etc.) related to the hotel's ground level is to be encouraged and will be considered a desirable refinement to the original objective that "... the base element of the building should cover as much of the site as possible," provided that views of the expressway are blocked.	As noted above, the project program includes 10,000 square feet for ground-floor retail space along the New Congress and Hanover Street facades. Retail uses are envisioned as small specialty shops which will complement, rather than compete with, nearby commercial activities such as the Haymarket pushcarts and neighboring retail areas. In addition, the Hanover Street facade includes a canopy for use by Haymarket pushcarts, thereby interrelating the project with that active use. The base element of the building, which together with the hotel and office components of the project, covers the entire site, has been designed to block views of the expressway looking eastward from City Hall Plaza.
Encouraging a high degree of pedestrian circulation and public access into and through the area of the site opposite the northerly end of the Congress Street Park is desirable, whether or not that portion of the site is covered by structure at upper levels, provided that views of the expressway are blocked.	The hotel entrance and retail space, major sources of pedestrian circulation, are located along New Congress and Hanover Streets, and oriented toward the corner of New Congress and Hanover Streets, near the northerly end of the Congress Street Park. A pedestrian arcade along New Congress Street leads to the hotel portion of the site. Views of the expressway from the Congress Street Park, as well as from City Hall Plaza and Tremont Street, are blocked by the project.

Massing and Building Height

Visual easement must be maintained.	The project preserves and maintains the visual easement, by ensuring sight lines from Tremont Street and City Hall Plaza to the Old North Church.
The base elements must recognize and respond to the variety of conditions that surround the site, i.e., 18th century structures, green open space, hard surface plaza, and elevated expressway.	The project, in terms of massing, is subdivided into several elements in order to establish a scale which is appropriate to its surroundings. The architectural details and materials for the project relate to the traditional character of the surrounding area. The principal facades of the building are divided into sub-elements through the use of reveals, cornices and changes in height to reduce the apparent scale of the project. The base elements are designed to resemble low-rise buildings compatible with the surrounding 18th century buildings. The four-story hotel base corresponds to the height of the buildings across Hanover Street and terraces with sloped walls at the fourth floor of the hotel relate to the sloped roofs of the Blackstone block. Sidewalks adjacent to the project will be reconstructed using historically sensitive materials, such as granite and brick pavers.
Maximum height should approximate the height of the John F. Kennedy Building.	The height of the project, exclusive of mechanicals, is 207.5 feet, and inclusive of mechanicals, is approximately 231 feet, less than the 344-feet height of the John F. Kennedy Building.
The floor area ratio should not exceed 8.	The floor area ratio of the project is 6.73.
A base element of the building should cover as much of the site as possible including the area of the below-grade subway easement and shall not be more than 42 feet in height in order to mask the expressway and preserve the visual	The base element of the project covers the entire site, including the area of the subway easements. Within the area of the visual easement, the height of the building does not exceed 42 feet. Although the project elements along Hanover Street exceed a height of 40 feet, those elements have been designed to be four stories in height, with terraces with sloped walls at the fourth floor of the hotel, to relate to the terraces with sloped walls at the fourth floor of the hotel, to relate to the sloped roofs of buildings

easement. Building height along Hanover Street shall be compatible with adjacent buildings in the historic Blackstone block. Any building element should be limited to a height of 40 feet for depth of 25 feet from Hanover Street, and beyond said depth of 25 feet, to the line of visual easement area, the height shall not exceed Kennedy Building as indicated above.	in the Blackstone block. Beyond a depth of 25 feet from Hanover Street to the line of the visual easement area, the height of the project does not exceed the height of the John F. Kennedy Building, as noted above.
The tower element should relate to other buildings the market district in a compatible and harmonious manner. If a unique form is proposed, its character should be uniquely Boston. The primary mass of the hotel element should be located toward the Blackstone street edge of the site.	The primary mass of the hotel is located toward the Blackstone edge of the site. The hotel and office tower elements of the project have been designed, through size and materials, to relate to other buildings in the market district.
Where office uses are contemplated along New Sudbury Street, the height of this element should not exceed the height of the adjacent Government Center Garage Facility.	The height of the office component does not exceed the height of the adjacent Government Center Garage Facility.
No open parking will be permitted, and all parking must be adequately screened from view.	All parking will be below-grade.

The only permitted exterior building materials will be masonry and glass.	The office component of the project will be faced with a combination of limestone and granite, and detailed in a manner similar to other historic commercial buildings in the vicinity of the project. The hotel is designed in traditional Boston red brick with small punched windows, consistent with those of the Blackstone block. The changes in materials were made to better integrate the project with its surroundings.
Mechanical equipment should be concealed from view and be included in the height limit (the height of the John F. Kennedy Building of 344 feet plus 20 feet in the differences in the grade) but mechanical floors are not included in the FAR calculations.	Mechanical equipment will be concealed from view in rooftop penthouses, the top of which will be at a height of approximately 231 feet.
Wind gusts in excess of 31 m.p.h. greater than 1% of the time at ground level are not acceptable.	Wind testing results indicate that ground level wind gusts will not exceed 31 m.p.h. more than 1% of the time.
Energy efficiency of the building will be a criteria.	The project design incorporates energy efficiency measures.
Relationship to Haymarket and Surrounding Areas	
Functions which impede and fail to complement the operation of the pushcart market or which impede pedestrian flows between Government Center and the North End along Hanover Street are discouraged.	The development enhances the pedestrian environment of the Haymarket with such features as a canopy providing shelter for pushcarts in inclement weather, a series of small retail establishments to enliven the streetscape and public improvements such as brick and granite paving on Hanover Street, landscaping and the provision of hose bibs. The hotel tower is positioned away from the pushcart area. The project's vehicular entrance has been designed to eliminate access and egress from or to Blackstone Street during market operations.

The minimum width of the sidewalk on New Congress and Hanover Streets should be 15 feet. The minimum width of the sidewalk on New Sudbury and Blackstone Street should be 8 feet.	The sidewalk on New Congress and Hanover Streets will range from 10 feet to 23 feet, averaging almost 19 feet in width. The sidewalks on New Sudbury and Blackstone Streets will range from 8-1/2 feet to 12 feet in width.
Pedestrian arcades and other pedestrian amenities are desirable along the heavily traveled New Congress Street and Hanover Street.	A pedestrian arcade will be constructed along the New Congress Street facade of the project. along the Hanover Street facade, a glass and metal canopy interrelates the project with Haymarket.
The entrance to the Haymarket MBTA station must be considered an integral part of the parcel design.	The entrance to the Haymarket MBTA station will be reconstructed as an integral part of the project. It will open directly into the New Congress Street pedestrian arcade and will be clearly identified.
All landscaping and paving materials shall be of a high quality compatible with the Government Center Project.	Landscaping of public areas adjacent to the project will be compatible with the Government Center Project. Paving materials will include brick and granite pavers, both compatible with the Government Center Project.

Vehicular Access, Parking and Traffic

Vehicular access must be from Congress and Blackstone Street. A through-block connection is preferred.	A through-block connection, providing vehicular access from New Congress and Blackstone Streets will be constructed as part of the project.
The Congress Street median strip will not be broken.	The project does not contemplate any breaking of the Congress Street median strip.

The number of parking spaces will be .4 spaces per hotel room, a maximum of .2 spaces per 1,000 gross square feet of office, and a maximum of 1 space per 1,000 gross square feet of retail (for tenant and hotel use only).	Such standards would require a total of 185 parking spaces for the project. The project, however, includes parking for 375 vehicles, in an effort to satisfy all the parking needs of the project. Since the project parking facility will be located entirely below-grade, the provision of additional parking will not affect the external appearance of the project.
Hanover Street can be closed with controlled service access between Union and Blackstone Streets. Hanover Street must remain open to all vehicles betwen Union and New Congress Streets.	The project does not contemplate the closing of Hanover Street.
Loading bays must be and designed to avoid backing onto streets. The number of loading bays provided for the project must comply with applicable zoning code provisions, as the same may be varied.	The project incorporates three internal loading docks on Blackstone Street which allow for service and and delivery activities to occur behind roll-down doors.
SHADOW ANALYSIS	The proposed development of Parcel 7 will cast no shadows on Government Center Plaza, Curley Park, or the Government Center Tot Lot. The North End neighborhood and the Central Artery will experience minimal shadow effects from the proposed Parcel 7 development. The only significant shadow cast into this area occurs during late afternoon in the winter within areas already shadowed by existing buildings. The only shadow effects of any significance to the Haymarket Pushcart area resulting from the proposed Parcel 7 Development will be limited to the area of Blackstone Street from Hanover to New Sudbury Street. The MBTA Bus Station at the Government Center Garage will experience limited shadow effects as the project's shadow will slightly precede the garage's own shadow across the bus drop-off zone.

WIND

A qualitative wind analysis was undertaken in order to predict the impact of the Parcel 7 Development on ground-wind conditions of 43 locations in and around the project area. The Boston Redevelopment Authority has stated in its Parcel 7 Design and Development Guidelines that wind gusts of 31 mph greater than 1 percent of the time at ground level would be unacceptable. The qualitative analysis provided here indicates that ground wind conditions will not exceed this threshold level for the proposed development.

HAYMARKET PUSHCARTS

Boston's Haymarket operates on Fridays and Saturdays within an established easement located along Blackstone and Hanover Streets. The Parcel 7 project has been designed to fully respect the easement and to enhance the identity and operation of the Haymarket.

Utilizing massing, traditional materials and streetscaping that is consistent with that of the Blackstone block, Parcel 7 has reinforced and extended the area's pedestrian environment. A glass canopy will protect vendors during inclement weather. A series of small retail establishments will add color and street-life to the pushcart area. The Parcel 7 Development proposes to reroute traffic to minimize potential conflicts during pushcart operations. A significant list of public streetscape improvements will strengthen the area's image as an attractive pushcart/pedestrian zone. Water hose outlets and catch basins will also be provided for use by the vendors.

ARCHAEOLOGY

An archaeological investigation of the Parcel 7 property in Boston, Massachusetts was conducted by Boston University's Office of Public Archaeology. The study included documentary research, an evaluation of existing conditions on the property, and limited archaeological testing.

The historical research demonstrated that the Parcel 7 property, located almost entirely on original Boston land, was intensively occupied from the 1640s until the 1960s, when the existing buildings on the parcel were razed. During the mid to late 19th century, the entire parcel was covered with brick structures containing basements. A study of soil profiles and utilities disturbances shows that these basements had disturbed the ground up to 10 feet deep, and had probably destroyed earlier historical features and deposits.

A program of limited machine-assisted testing confirmed the presence of sterile clay subsoil below the level of the 19th-century basements. It is concluded that no significant archaeological remains survive on the property, and no further archaeological work is recommended at the site.

CONSTRUCTION

The construction process for the Parcel 7 project has been planned to minimize environmental impacts to the surrounding area. Excavation is scheduled to occur in May of 1987.

Site-watering will be used to reduce demolition and construction-related dust, and noise mufflers will be utilized on construction equipment.

A temporary retaining wall will be provided around the construction site, and all pedestrian flows around the project site and to the MBTA will be maintained during construction, consistent with public safety requirements. Construction vehicles will be routed to minimize conflict with area traffic and pushcart activities. The construction process will follow a schedule to allow minimal impacts to neighboring uses, to the extent practical.

There will be no interruption of MBTA service during construction, with access to the station platform maintained at all times. Ongoing contact and coordination with the MBTA chief engineer and other pertinent MBTA departments will continue throughout the planning and construction process to assure minimal inconvenience to MBTA passengers and employees.

II. Area & Project Description

PROJECT SITE

Parcel 7 is a 57,900 square foot (1.33 acre) site located in the City of Boston and bounded by Hanover, New Congress, New Sudbury and Blackstone Streets (see Exhibit II-2). The site is the last remaining major development parcel of the Government Center Urban Renewal Project initiated in the early 1960s. Parcel 7 is currently vacant, and is utilized as a parking lot primarily by city employees and Haymarket trucks on market days.

The site provides parking space for approximately 150 vehicles, and is currently unpaved and poorly maintained. A broken asphalt driveway leading from a dilapidated gatehouse runs through the center of the property. An MBTA subway entrance and bus stop shelter is located on the site near New Congress Street. The property's perimeter is partially lined by chain link fencing which is collapsing in some areas. The balance of the property's perimeter is lined by granite slabs lying on the ground in an overlapping position.

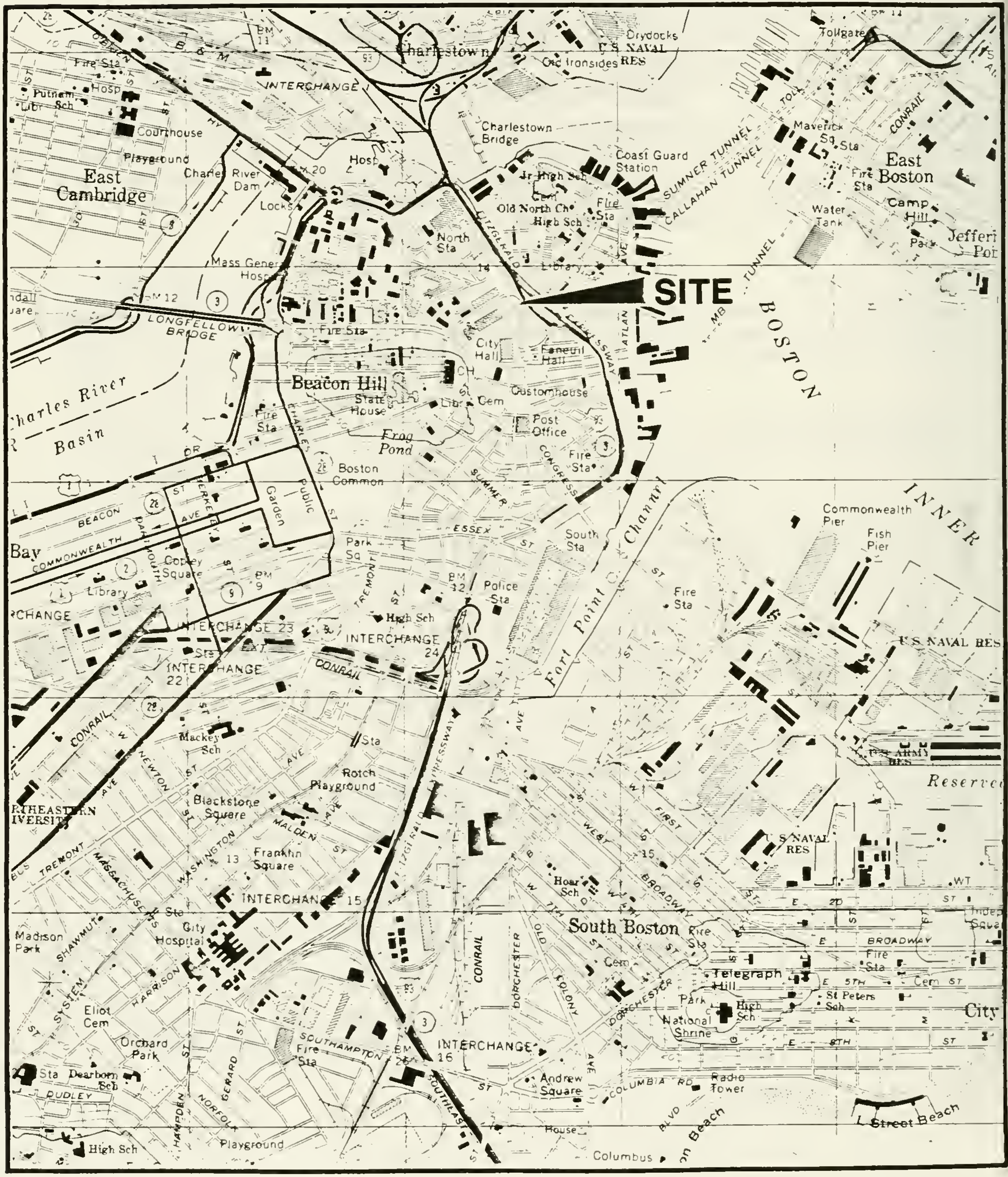
Parcel 7 is currently controlled by the Boston Redevelopment Authority (BRA), which has taken special care in developer selection and design review due to the site's high visibility, central location and proximity to major governmental, residential, commercial and tourist-oriented activities. Due to a number of special conditions which affect this site, Parcel 7 poses severe development constraints which have limited the type and extent of development currently planned by the project proponent.

One such constraint is a 42-foot height restriction in the form of a visual easement, placed across the center of the site by the BRA (see Chapter IV, Section E, Visual Quality and Urban Design). The intent of the easement is to preserve the view of the historic Old North Church from Cambridge Street at the top of City Hall Plaza, while masking the view of the elevated Central Artery. This requirement significantly limits those portions of the site on which mid-rise or high-rise construction might occur.

Development of Parcel 7 is also constrained by the presence of subsurface Massachusetts Bay Transit

Exhibit II-1

U.S.G.S. Area Map



Authority (MBTA) facilities which underlie approximately one-third of the site at its northwest corner (see Chapter IV, Section C, Transit Facilities). These facilities, consisting of subway tunnels and station platforms for the MBTA's Green Line and Orange Line, represent a 16,000 square foot easement ranging in depth from 4 to 24 feet below surface level. These MBTA facilities complicate foundation configuration within the easement. In addition, the existing MBTA station entry on the New Congress Street side of the site must be maintained during the construction and operation of the planned project.

Another factor which affects development of Parcel 7 is the site's proximity to the Blackstone Block, an important historic district of 18th and 19th century buildings. The proposed project has been designed to comply with guidelines established for the site by the BRA which stress the need for development of Parcel 7 to be sympathetic to the scale and form of buildings within the Blackstone Block.

AREA DESCRIPTION

Blackstone Block

This area, listed as a historic district on the National Register of Historic Places, lies directly southeast of the site. The district is bounded by Union, Blackstone, Hanover and North Streets. The Blackstone Block is composed of a mix of primarily 18th and 19th century buildings which line streets and narrow alleys dating from the 17th and early 18th centuries. Current uses in the area range from tourist-oriented restaurants and shops to small meat and produce establishments associated with the operation of the Haymarket.

Curley Park

Extending for approximately 400 feet between New Congress Street and the Blackstone Block is Curley Park. This landscaped open space includes benches, and features two full-size sculptures of former Boston Mayor James Michael Curley. the park has a north-south linear orientation, with the Parcel 7 site at its northern terminus.

Haymarket

Boston's Haymarket operates on Fridays and Saturdays each week and consists of pushcart vendors selling fresh produce, fish, meat and cheese along Blackstone Street and portions of Hanover Street. The market dates back to the early 1700's, and currently attracts extensive patronage which includes tourists, local residents, shoppers from outlying suburban areas, and buyers from local restaurants.

Government Center Parking Garage

To the northwest of the site is the nine-level, 1884-space Government Center Garage, currently utilized as a public parking structure. Planned redevelopment of the Garage would add 218 new parking spaces to the top of the garage, approximately 250,000 square feet of office space to be constructed within two additional levels, and 21,000 square feet of retail space at the ground floor. Planned public improvements, such as brick paving of the plaza which underlies the structure at ground level, are aimed at establishing a pedestrian orientation for the area.

Haymarket Transit Station

The Haymarket Station of the Massachusetts Bay Transit Authority (MBTA) is located below the Government Center Garage, as well as below the northwest third of the Parcel 7 site. The station is a major downtown bus and subway interchange serving a variety of outlying areas. The principal entrance to the subway platforms is at the plaza below the Government Center Garage. A second entrance is located on the New Congress Street side of the Parcel 7 site. Subsurface MBTA facilities which underlie the site represent a 16,000 square foot easement ranging in depth from 4 to 24 feet below surface level.

Central Artery

To the northeast of the site is the John Fitzgerald Expressway, also known as the Central Artery. The elevated structure is the city's central north/south parking occur below the Central Artery. Proposals for the depression of this roadway are currently under consideration by state and Federal officials, and would entail a massive undertaking with construction activity lasting for approximately ten years.

North End

Immediately north of the Central Artery is the North End neighborhood. The North End is a dense residential community composed primarily of three to five-story brick structures, often with commercial uses on the ground floor. The area is characterized by small shops, restaurants and cafes, as well as by narrow streets and crowded parking.

Government Center

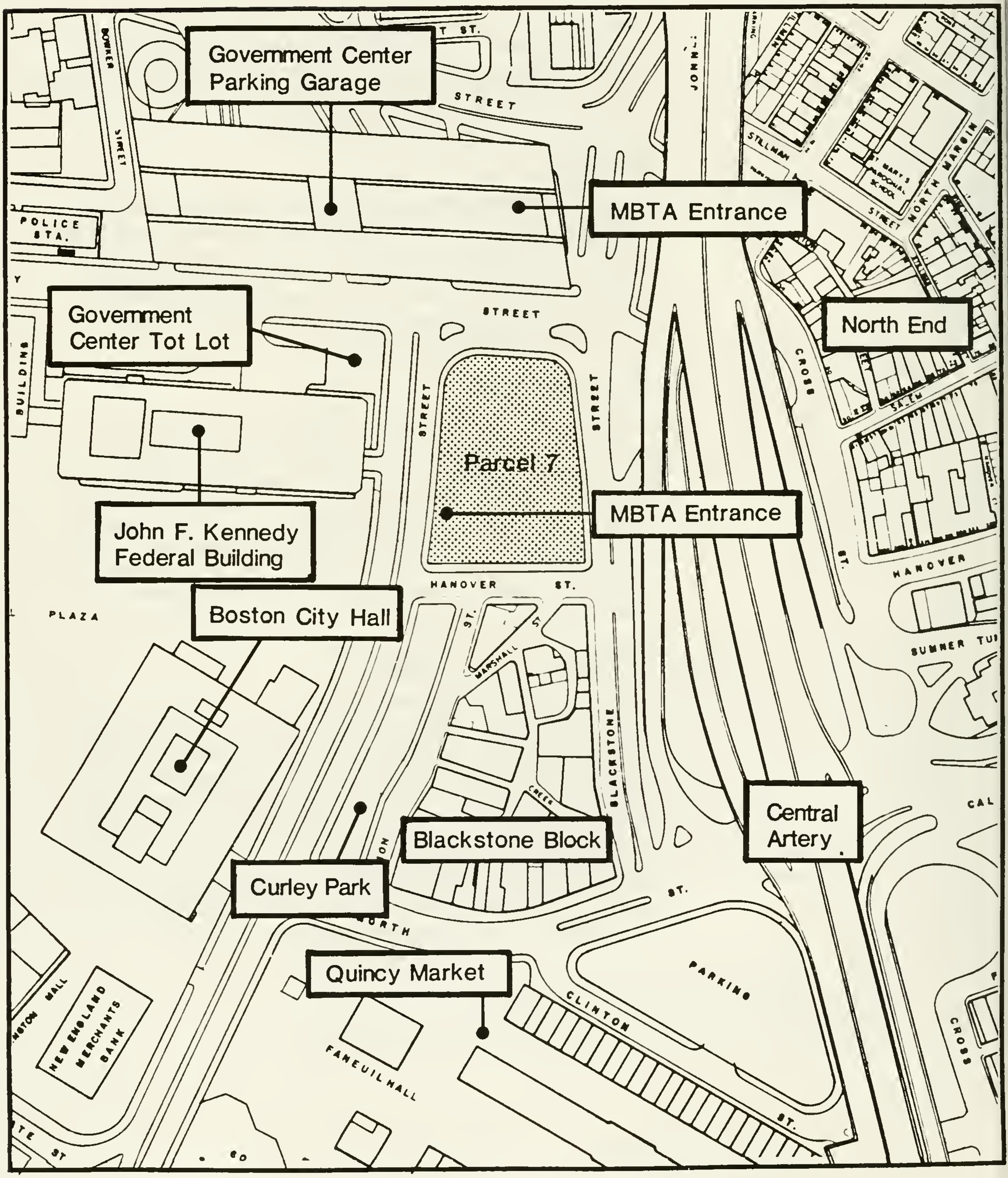
Located to the southwest of the Parcel 7 site is Government Center, an area which consists of Boston's City Hall, the 24-story John F. Kennedy Federal Building, and a large brick-paved plaza area which steps down to New Congress Street. The Government Center Plaza is one of the city's principal open space areas, and represents the primary pedestrian route from Boston's downtown Crossing to the Quincy Market and Parcel 7 area.

Government Center Tot Lot

This small area located adjacent to the John F. Kennedy Federal Building, directly across New Congress Street from the subject property, is used by the Government Center Child Care Corporation as a playground for use by children age 3 months to five years. Approximately 20 to 25 children use the playground at any one time during the period from 7:30 a.m. to 5:30 p.m., Monday through Friday. The playground area, which is leased from the U.S. General Services Administration, is walled in on three sides, with a chain link fence on the fourth side facing New Congress Street.

Exhibit II-2

Site Vicinity Map



PROJECT DESCRIPTION

Introduction

The following section describes the proposed Parcel 7 Development scenario. Additional scenarios for reduced development programs are described in Section III.

Project Description

The Parcel 7 Project will result in the construction of a mixed-use development including a 19-story hotel (with 375 rooms), a 9-story office building (113,150 g.s.f.) and four levels of underground parking (with space for 375 cars). In addition to 9,400 square feet of retail space, the ground floor will feature hotel and office lobbies, vehicular drop-offs and a pedestrian arcade (see Exhibit II-3).

The development's hotel component will total 319,550 gross square feet which, in addition to its 375 guest rooms, will feature a variety of ancillary activities. Dining facilities within the hotel will include two restaurants seating approximtely 260 persons, a lounge, a lobby bar, and retail space. The second floor of the hotel will feature a ballroom and eight meeting rooms for conferences, exhibits, classes and banquets.

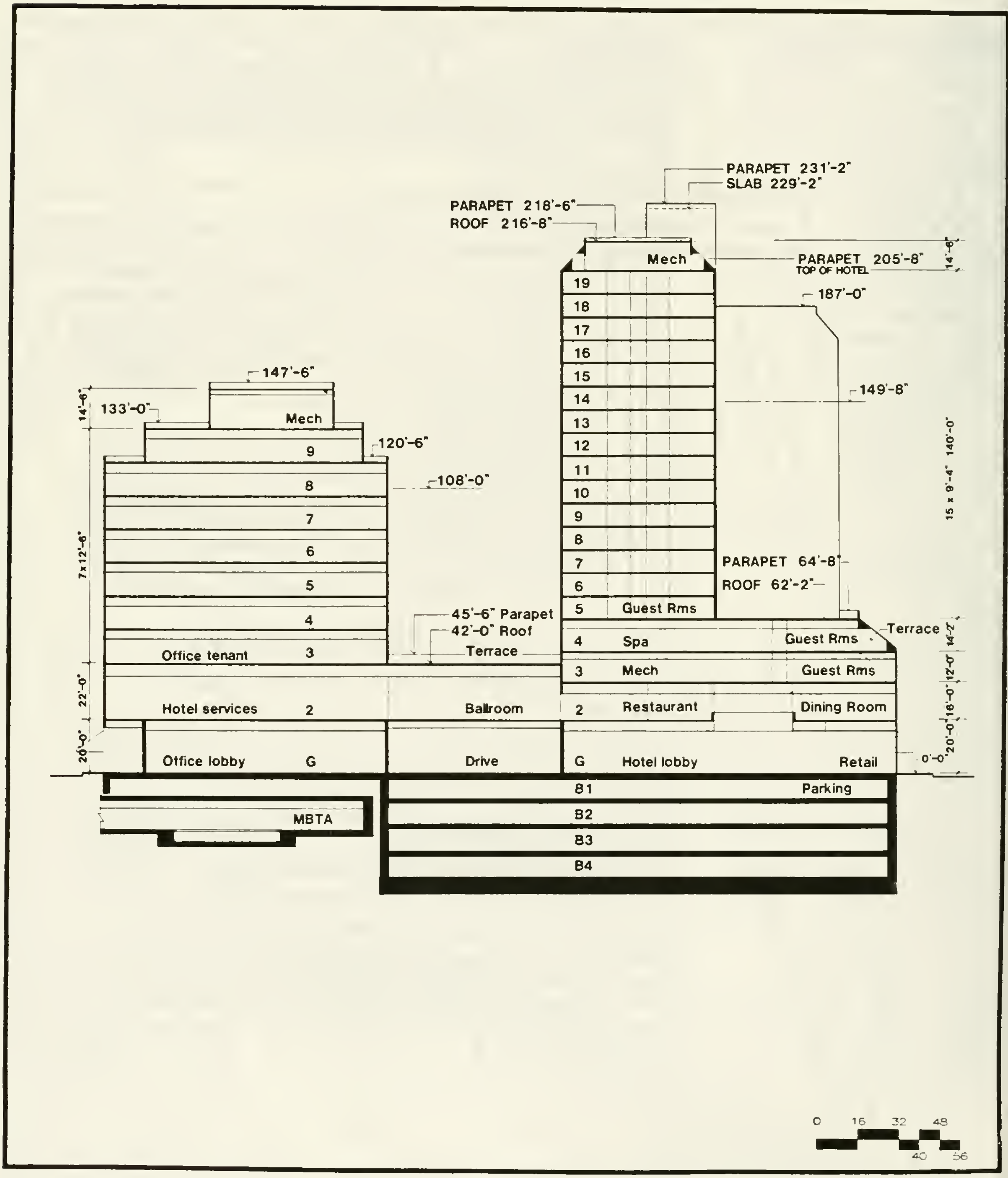
The office building component of the project will have seven office floors (floors 3 - 9). Floors one and two will house retail, the office lobby and office/hotel services.

Ground-floor retail uses are intended to reinforce the pedestrian-oriented streetscape which exists within the adjacent Blackstone Block and nearby Quincy Market. Retail uses are envisioned as small specialty shops which will complement rather than compete with nearby commercial activities such as the Haymarket pushcarts and neighboring retail areas.

The Parcel 7 Project has been designed in response to parameters, constraints and guidelines established to preserve Boston's history and character. The 1964 Urban Renewal Plan established a Floor Area Ratio (F.A.R.) of 8 for the site. The Floor Area Ratio is

Exhibit II-3

Building Section



defined as the Net Floor Area divided by the site area. The Net Floor Area is the project's gross floor area excluding mechanical shafts, elevator shafts, mechanical equipment rooms and mechanical penthouses. The 1964 plan further established a height limit of 200 feet above elevation 34.0. In addition, the below grade subway easement must be respected as well as the visual easement along the sight line from Tremont Street and City Hall Plaza to the Old North Church.

The Project design has been developed and refined in consultation with the Boston Redevelopment Authority and other State and City review boards. As a result of these consultations, a design has evolved which will be compatible with the project's context and in particular with the historic Blackstone Block.

Program Summary

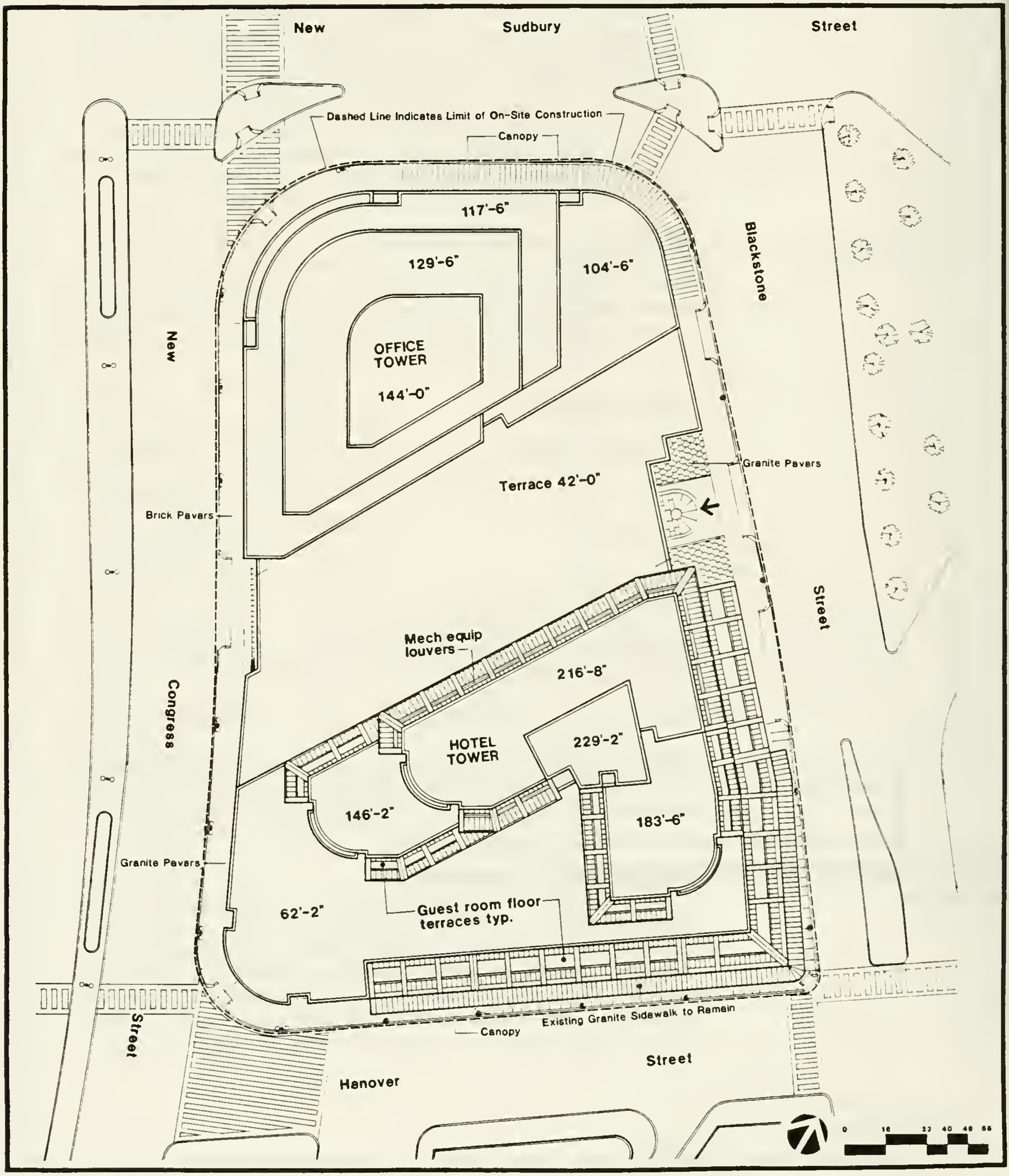
Program Component	Net Floor Area (s.f.)
Hotel	281,400
Office	99,550
Retail	9,400
Total Net Floor Area (F.A.R.=6.73 Permitted F.A.R.=8.00)	390,350
Garage (Gross Floor Area) (375 Spaces)	101,500
Project Total	491,850

PHYSICAL DESCRIPTION OF PROJECT

The Project, in terms of massing, is subdivided into several elements in order to establish a scale which is appropriate to its surroundings. The office building, located on the corner of New Congress and New Sudbury Streets, is distinguished from the hotel through its massing, scale and materials. The facade of the office structure follows the curve of the site giving prominence to the corner as a major entry to the historic

Exhibit II-4

Illustrative Site Plan



market district. The office building entry is located on this corner (see Exhibit II-4).

A pedestrian arcade along New Congress Street leads to the hotel portion of the site, which is oriented towards the corner of New Congress and Hanover Streets. The hotel entrance on this corner creates a strong focal point for Curley Park (see Exhibit II-5). The massing of the hotel responds to the historic Blackstone Block. The four story hotel base corresponds to the height of the buildings across Hanover Street and terraces with sloped walls at the fourth floor of the hotel relate to the sloped roofs of the Blackstone Block. The higher portions of the hotel are set back from New Congress and Hanover Streets and step up towards the Blackstone Street side of the site. A continuous glass and metal canopy above the ground floor retail shops along Hanover Street, reinforces the market character of this street, and provides a backdrop for the pushcart vendors.

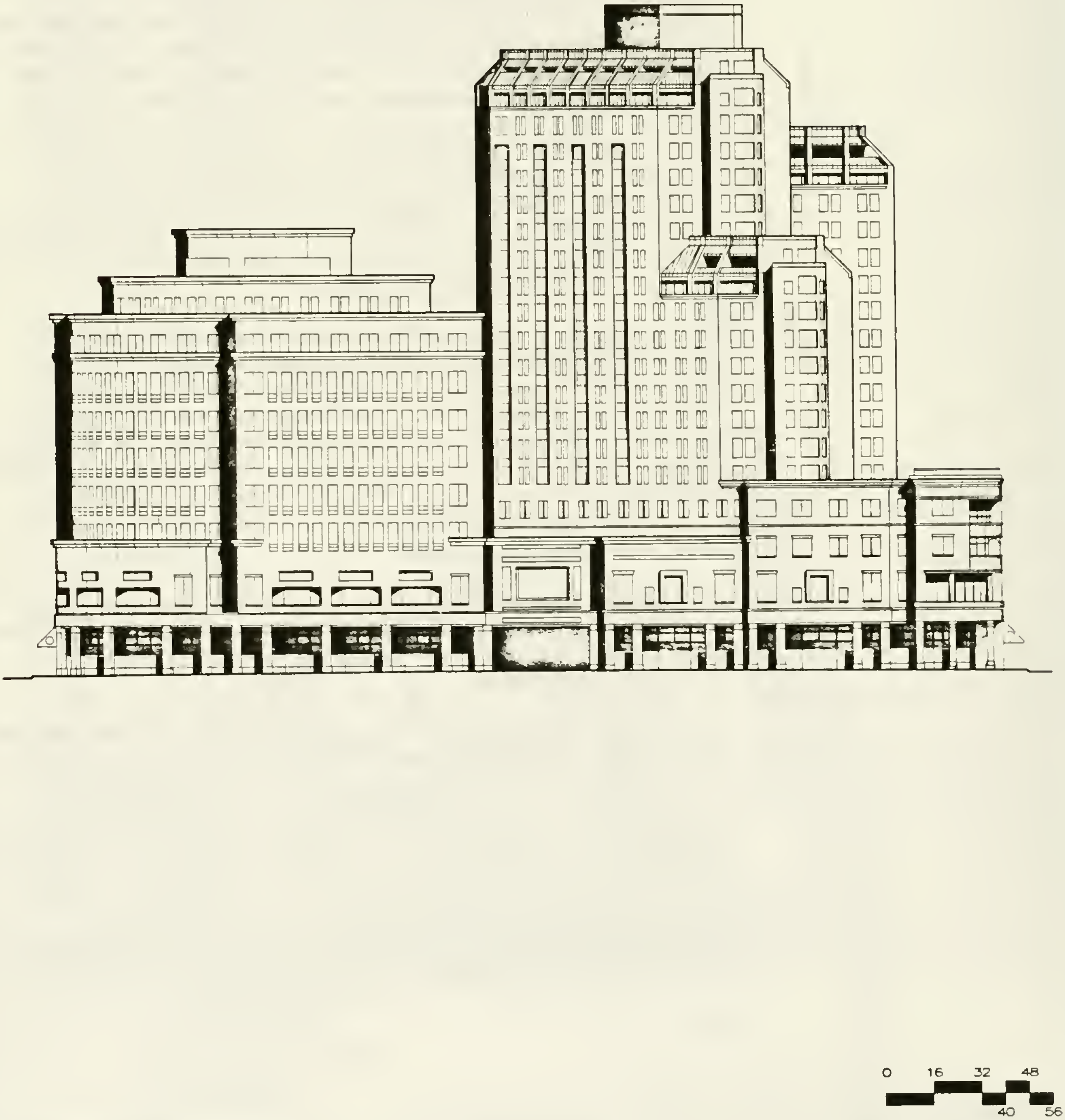
The hotel and office buildings are separated by a covered street which cuts through the site from New Congress to Blackstone Street. It serves as the automobile drop-off for the hotel and as the entrance to the underground parking garage. Above the street is a one story element containing the hotel ballroom. The visual easement (from City Hall Plaza to Old North Church) separates the office and hotel portions of the project above the ballroom.

The Haymarket Station subway entrance is integrated in to the project design. It will open directly into the New Congress Street pedestrian arcade and will be clearly identified.

The architectural details and materials for the project relate to the traditional character of the surrounding area. The principal facades of the building are divided into sub-elements through the use of reveals, cornices and changes in height, in order to help reduce the apparent scale of the project. The office building, faced with a combination of limestone and granite, is detailed in a manner similar to other historic commercial buildings in the vicinity. In contrast, the hotel is designed in traditional Boston red brick

Exhibit II-5

New Congress Street Elevation



with small punched windows, consistent with those of the Blackstone Block in their verticality, proportions and rhythms. The store fronts at street level will also blend with the historical character of the neighborhood.

Stone cornices and lintels will be used on the hotel to establish some visual links to the rest of the project. In addition, the ground floor arcade, faced with stone, will provide a unifying element to the design. The low element linking the hotel and office building will be a transitional element combining stone and brick on the facade. Above the entrances to the thru-street will be cut brick decorative panels as seen on many historic Boston buildings.

Pedestrian Circulation

Because the area's largest volume of pedestrian traffic occurs along New Congress Street, special concern has been focused on the treatment of that walkway. The goal has been to establish a chain of points of interest and gathering places for pedestrians, connected by an arcaded, pedestrian-oriented streetscape.

Beginning at 60 State Street, the pedestrian walk reaches its first important juncture of activity at Quincy Market, then passes through Curley Park.

The hotel entry and facade treatment at the intersection of Hanover and New Congress Streets has been designed to reinforce this axis, linking Parcel 7 with Curley Park and the Union Streetscape. The hotel entry undercut announces both the primary pedestrian entrance and the beginning of the block-long arcade paved in brick and granite along New Congress Street.

The uninterrupted arcade will lead to the thru-block access drive, passing the relocated MBTA entrance. Special paving, signage and lighting will provide high visibility and clear access for subway patrons.

At the corner of New Sudbury and New Congress Streets, the undercut entry to the office building will serve as a gateway to the Quincy Market/Blackstone Block historical district for south-bound pedestrians.

Recognizing the importance of the pedestrian experience in this unique area, the New Sudbury, Blackstone and Hanover streetscapes will be paved with traditional Boston brick and granite curbs. Glass canopies and traditional street lighting will provide comfort, safety and interest for commuters and tourists alike. An existing remnant of an early granite sidewalk will remain in-place, serving as a unique artifact of the neighborhood's rich history.

Several small specialty retail shops at the ground level, along with the pushcart activities will yield a pedestrian environment that is both appealing and lively. Granite and brick paved crosswalks at all project street crossings will extend the pedestrian amenities to neighboring sites, and the paving of Hanover Street with granite will further enhance the development's interface with the Blackstone Block (see Exhibit II-6).

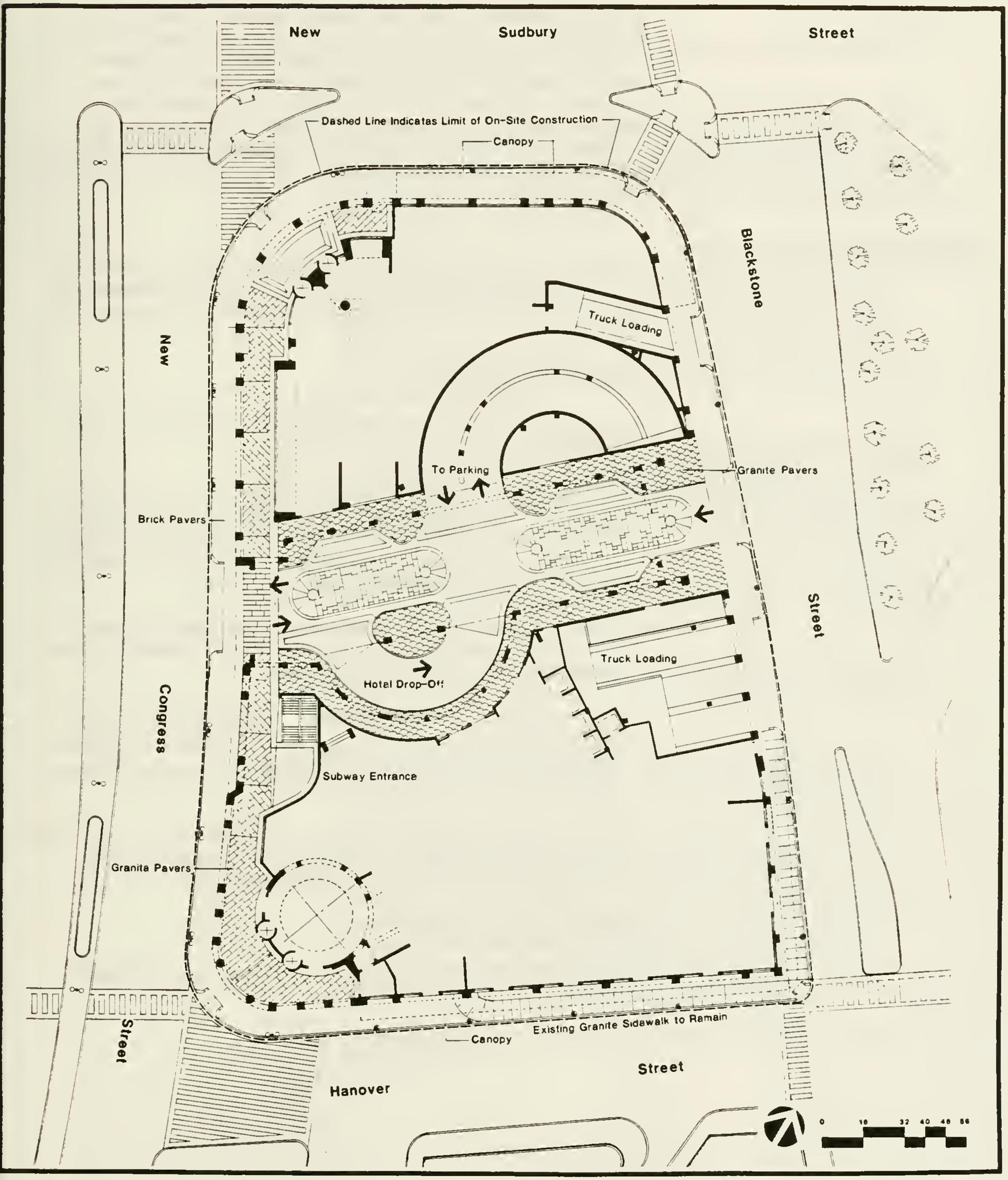
Vehicular Circulation and Access

A through-block connection between New Congress and Blackstone Streets will provide vehicular access to the site (see Exhibit II-6). The hotel lobby and its administration areas, the office lobby and the entrance to the underground parking structure will be accessible via this connection. Due to the high volume of pedestrian traffic crossing the proposed curb cut, the walk and arcade surface treatment will continue, uninterrupted, minimizing the sense of a street crossing. Granite bollards at this crossing will both guide vehicles across the sidewalk and serve to warn pedestrians to the potential of vehicular traffic as well.

Approaching traffic will enter the through-block connection from the northwest-bound side of New Congress Street. Hotel and office lobby traffic is provided with a turn-around and will exit, returning to the northwest flow of New Congress Street. All parking garage traffic will likewise exit via New Congress Street. Traffic analyses indicate a small number of vehicles can be expected to enter the project via the southeast-bound lane of Blackstone Street, primarily during the morning peak hour. Traffic will not be

Exhibit II-6

Site Access



structure will do so onto New Congress Street only. Deliveries to the office structure and hotel along with trash collection will be accommodated by internal loading bays off Blackstone Street. One dock is provided for the office building, and three bays service the hotel. Deliveries and pick-ups to the project will occur completely internally, behind roll-down doors, minimizing impacts to pedestrian circulation and pushcart activities.

PUBLIC IMPROVEMENTS

On site and off site public improvements relating to the development of Parcel 7 will utilize the same or similar materials and colors to create a cohesive design.

On-Site Improvements

The on-site public improvements will consist of the following:

- An arcade which extends along New Congress Street from New Sudbury to Hanover Street will be paved in a combination of brick and granite with special patterns at subway and building entrances. Special decorative lighting will be included.
- Granite paving and decorative lighting will be provided along the thru-block drive connecting New Congress and Blackstone Streets.
- The canopies provide weather protection for Haymarket pushcarts on Hanover and Blackstone Streets, and for pedestrians on New Sudbury and Blackstone Streets.
- The subway entrance will be upgraded to tie into the new building design. New paving, lighting and identification signs will be provided.

Off-Site Improvements

The off-site improvements will include the following (see Exhibit II-7):

Off-Site Improvements

The off-site improvements will include the following (see Exhibit II-7):

- OK Sidewalks: The design for the sidewalks adjacent to Parcel 7 includes acorn lighting, brick sidewalks with granite curbing and, to the extent practicable, the restoration of historic granite slabs on Hanover Street.

- OK Child's Tot Lot: A small playground for children will be built in Curley Park. Special attention will be paid to features which will ensure the safety of children who will use the lot, such as adequate fencing. The lot will contain an interesting variety of playground features as suits the available space.

- OK New Congress Street Median: The median strip of New Congress Street will be paved with brick. Treatment of the median will include granite planters and appropriate seasonal plantings (with provision for maintenance) as well as ten double acorn lanterns.

- OK Pedestrian Crosswalks and Islands: All proposed crosswalks and islands will be paved in a combination of brick and granite pavers.

- OK Hanover Street: The area of Hanover Street from the steps of City Hall to the Expressway will be paved in granite.

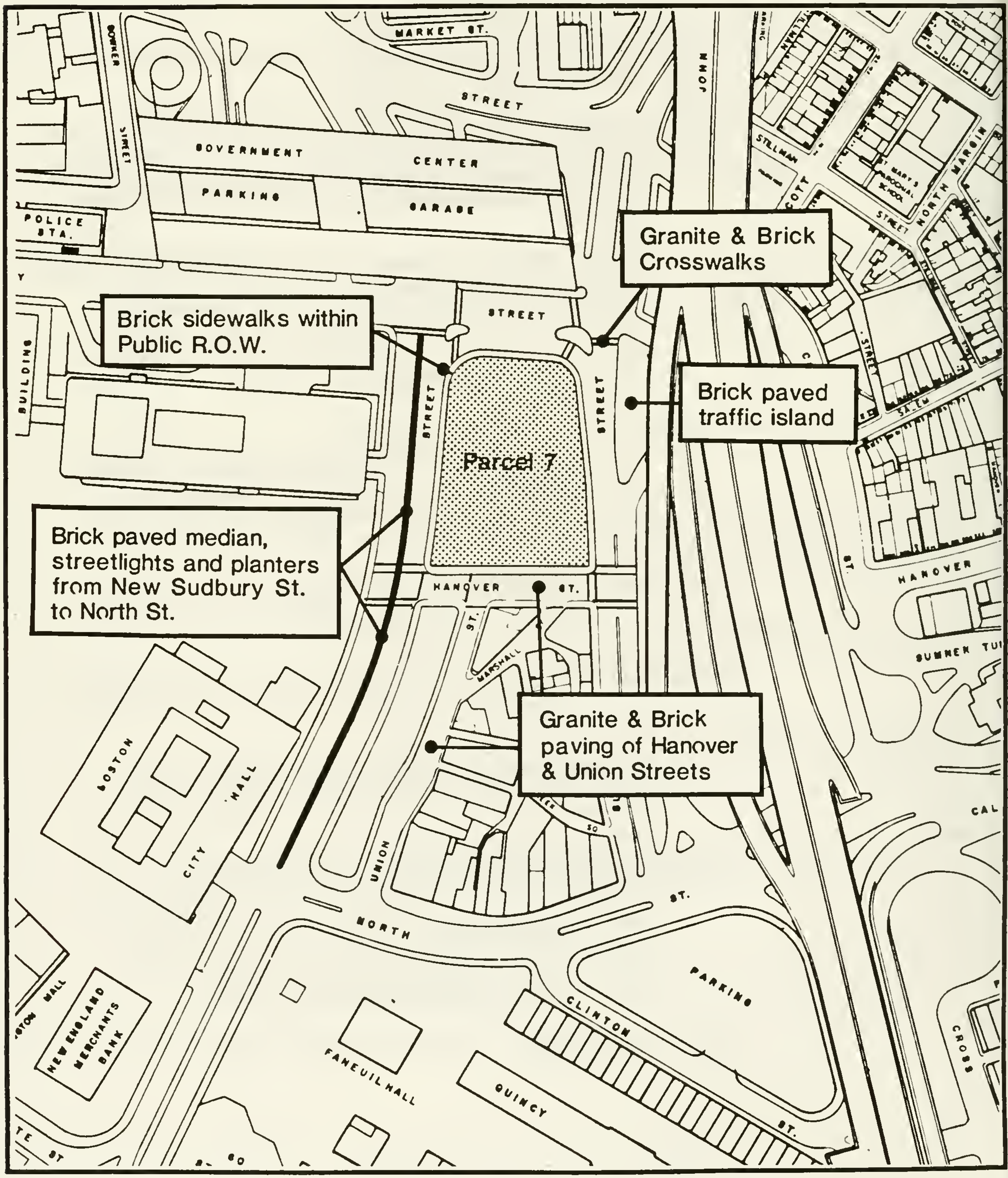
- OK Blackstone Street Median with Tree Park: This median will be paved with brick, and metal tree gratings will be provided for the existing trees.

- OK New Congress Street Curb Line/Parking Lane: The present New Congress Street parking lane will be paved in brick and the present curb line relocated accordingly. The resultant area will receive appropriate sidewalk treatment including trees, light fixtures, and planters similar to that described above for the New Congress median.

- OK Union Street: Union Street will be paved in granite pavers.

Exhibit II-7

Off-Site Public Improvements


Granite & Brick Crosswalks
Brick sidewalks within Public R.O.W.
Brick paved traffic island
Brick paved median, streetlights and planters from New Sudbury St. to North St.
Granite & Brick paving of Hanover & Union Streets
Parcel 7
MARKET ST.
STREET
GOVERNMENT CENTER PARKING GARAGE
POLICE STA.
BOWKER STREET
BUILDING
JOHN
STILLMAN
NORTH MARGIN
STREET
STREET
STREET
SALEM
ST.
HANOVER ST.
HANOVER
MARSHALL ST.
UNION
NORTH ST.
BOSTON CITY HALL
NEW ENGLAND MERCHANTS BANK
FANEUIL HALL
QUINCY
CLINTON ST.
PARKING
CROSS
SUMNER TU
CAL

III. Description of Alternatives

INTRODUCTION

Since the filing of the Environmental Notification Form for the project in 1983, the project proponent has made significant changes to the project program. As contemplated at the time of the filing of the Environmental Notification Form, the project included a 35-story, 464-room hotel 364 feet in height located on the Hanover Street side of the project site, an office building 103.5 feet in height containing approximately 81,000 square feet of space located on the Sudbury Street side of the project site, a parking garage with a capacity for approximately 270 vehicles located above-grade between the office and hotel components of the project, 1,800 suqare feet of ground level retail space, and a sidewalk cafe located on the Congress Street side of the project parcel. As contemplated in this Draft Environmental Impact Report, the hotel component has been reduced in size to 19-stories and 375 rooms, 207.5 feet in height, the office component has been increased in size from 81,000 square feet to 120,000 square feet of space with no increase in height, the ground level retail space has been increased to 9,400 square feet, and the parking garage has been increased to 375 spaces and relocated from the center of the easterly portion of the project site to below grade.

In the process of changing the project as described in the preceding paragraph, the project proponent considered and rejected numerous changes to the project design, ultimately choosing to modify the scale of the project, to relocate the parking portion of the project to below-grade, and to adjust the balance of uses between office and hotel uses. The proponent determined that a reduction in the scale of the project, by replacement of the long, lean tower element portion of the prior design with an ensemble of stepped masses of lower overall height, had several advantages. First, that change brought the height of the project within the height limitation contemplated by the site for the site by the Government Center Urban Renewal Plan, thereby eliminating the need to modify the Urban Renewal Plan for the project area and removing any "challenge" to the prominence of the John F. Kennedy Federal Office Building and the Boston City Hall which the original tower design might have posed. The new dEsign also eliminated the many sharp angles of the former tower element, which would have resulted in shadow play on that element.

The new design allows for generous setbacks from Hanover Street and is both reflective, and respective, of tHe variety of building shapes and heights in the adjacent Blackstone block, without being limitative of those buildings. Thus, the new design is in the spirit of the "New Boston Architecture" which has been developing in recent years, in that rather than containing A high rise building that could be located in any city, the project now contains mid-rise buildings that are uniquely Boston. The project proponent believes that because of the project's location adjacent to historic areas, such design is particularly important, and may help to further the development of the New Boston Architecture.

Relocation of the parking portion of the project, from an above-grade to a below-grade location permitted adjustments in the height and scale of the above-grade structures on the site and facilitated an increase in the number of parking needs of the project. More importantly, together with the elimination of a small plaza, which was done to avoid competition with the more significant Curley Park and City Hall Plaza, it made possible an increase in the pedestrian-oriented retail space at the ground level of the project.

In addition to the scale and program changes described above, the project proponent has, within the constraints imposed upon the project site, as discussed below under "Alternatives," made numerous detail changes in the project, such as rounding corners and adding architectural details reflective of the project's environs. Furthermore, the proponent, reflecting changes in perceptions regarding the relationship between buildings and adjacent streets, has added arcades and other architectural details to the lower levels of the project so that the project does not drop by straight vertical lines to the street, but instead is designed to invite pedestrain use of the adjacent streets and to integrate with the pedestrian uses of the streets surrounding the Blackstone blocks. The changes also reflect discussions between the proponent and various agencies and organizations, including the Boston Redevelopment Authority, the Boston Landmarks Commission and the Massachusetts Historical commission. The changes have been reviewed with the Boston Preservation Alliances and the Boston Society of Architects.

ALTERNATIVES

No-Build Alternative

A no-build alternative is included in this evaluation for the purpose of comparing the impacts of proposed development scenarios with those that would be anticipated if no development were to occur.

Existing conditions on and around Parcel 7 are described in detail in Chapter II, Project and Area Description. To summarize, the site is currently an unimproved parking lot with a capacity of approximately 150 vehicles. The existing MBTA station entrance, the view of the Old North Church, and its adjacency to the Blackstone Block are the site's most prominent features.

The No-Build Alternative consists of continued use of Parcel 7 as an informal, at-grade parking facility for City employees, with no development occuring on-site. Current unattractive site conditions, which include an unpaved and pitted parking area, asphalt sidewalks, and dilapidated fencing, lighting, signage, and gate facilities, would continue to exist at this parcel which is centrally located and highly visible to area business people and tourists.

Under this alternative, the various urban design goals embodied in the BRA's extensive development guidelines would not be achieved, and a substantial number of public improvements such as new paving along Hanover Street, a new median strip along New Congress Street, and various pushcart related amenities, would not be constructed.

The revised scoping decision of the Secretary of Environmental Affairs dated July 7, 1986, as described in a letter dated September 16, 1986 from Steven Davis, Assistant Secretary, Environmental Impact Review, directed the project proponent to study, as an alternative, a project reduced in scope. In considering alternatives in response to that request, the proponent with awareness of comments regarding the scope of the project, first analyzed whether an apparent reduction in scope could be achieved by remassing. However, the design of the project is subject to numerous restrictions and constraints on development, including present site conditions and requirements established by the Boston Redevelopment Authority, which preclude any significant remassing:

> Soil Conditions. The project site consists almost entirely of filled land, the fill having been emplaced during the nineteenth century to displace the Mill Pond, so called. The water table on the site is encountered at approximately 10 feet below the current surface grade. Any structure of more than three stories on the project site must be supported by deeply emplaced piles or caissons. In addition to such structural support, excavation for below grade uses requires that the entire site be enclosed within a slurry wall to block the inflow of ground water.
>
> Subway Tunnels. The northwest quadrant of the project site is encumbered by below grade easements for the existing Orange Line and Green Line subway tunnels. Above grade construction

in this quadrant cannot be fully structurally supported by direct weight bearing to ground, but must be substantially cantilevered over the two subway tunnels. In addition to the extraordinary cost of such structure, the subsurface structural system effectively limits the height of a building on the northwest quadrant to nine stories or 112 feet.

Visual Easement. The Boston Redevelopment Authority's disposition requirements for the project site mandate that no structure taller than forty-two (42') feet may be constructed in a diagonal corridor which bisects the site. This limitation forces project mass to the north and south of the view corridor. Whether the buildings of a height greater than forty-two (42') feet to the north and south of the corridor are dedicated to the same or different uses, they are forced to have separate cores for elevators, utilities and mechanical systems, thus incurring duplicate costs for these items.

Mandatory Parking/Below Grade Parking. The project site is one of only 3 parcels in the entire Government Center Urban Renewal Area for which parking in a specified amount or ratio is required. That parking ratio is three (3) spaces for every 4 hotel rooms. The Boston Redevelopment authority has coupled this mandatory parking requirement with an urban design requirement that parking be placed below grade. The provision of parking below grade is complicated by the unavailability of the northwest quadrant for such use, creating difficult and irregular parking floors below grade, plus the expense of deep excavation in filled land.

Such a background of plysical, contractual and legal constraints, over which are superimposed additional urban design guidelines and criteria, make the use of remassing to reduce the apparent scope of the project infeasible.

The project proponent also, in response to the Secretary's request, considered various methods to reduce the size of the project, and analyzed the economic viability of two such alternatives. One scheme (Alternate A) involved a forty percent, across the board reduction of all program elements. In this configuration, the office building is reduced to 68,000 square feet and the hotel is reduced to 185,000 square feet with approximately 225 rooms. 169 parking spaces would be provided on three underground levels. The other scheme (Alternate B) involved the elimination of the entire office component and the construction of a hotel, containing 253,200 square feet with 300 hotel rooms. Since the proponent assumed that the purpose of this exercise was to study a project of less overall mass in juxtaposition to the Blackstone block than its proposal, the proponent did not assume that the northern end of the site when the office space is now proposed would remain undeveloped, but rather that the single hotel use would be spread out to occupy the development parcel.

In addition to the constraints and restrictions described above, all of which increase the cost of the project, the economic feasibility of the city project is affected by the following restrictions imposed by the Boston Redevelopment Authority:

> Hotel Room Rates. The hotel to be developed on the project site is to have an average undiscounted room rate ten (10%) percent lower than the average undiscounted room rates of certain designated existing hotel properties in the immediate vicinity of the site. The ten (10%) percent below market requirement is a significant financial limitation. Each of the designated properties was built at least six to eight years earlier than proponent's hotel will be. Because of the compounded effect of construction cost escalation in that six to eight year period, their room rates reflect capital costs significantly lower than those to be incurred at the project.

Public Improvements. Development of the project requires extraordinary expenditures for public, off-site improvements. Special paving and lighting is to be applied on each of the four sidewalks surrounding the site as well as to Hanover Street. These public improvements have an estimated cost in excess of $4,000,000.

The proponent's development program for Parcel 7 consists of approximately 432,000 square feet of above grade space, of which 113,150 square feet is dedicated to office use, 309,000 square feet dedicated to hotel use, and 10,000 square feet dedicated to retail use. In reviewing the alternatives, as directed by the Secretary, of a project of 259,200 square feet, the project proponent, since no suggestion was made as to how the forty (40%) percent program reduction should be made, analyzed the alternatives described above, assuming in each case that the 10,000 square feet of Haymarket oriented retail space, a major project amenity, will remain. With respect to the alternative which eliminated the office component in its entirety, because of the forty-two (42') foot visual easement corridor, such a hotel must have twin elevator and mechanical cores, one lying to the north and one to the south of the visual easement. However, only approximately 300 rooms and ancillary function space are accommodated. The double core costs and the duplicate exterior wall costs, to cite only two of the premiums in this configuration, make this configuration equivalent to the construction of two hotels, each of only 150 rooms. As pro formas included in Exhibit G indicate, the capital cost per room of this configuration renders such a project infeasible. The pro formas clearly demonstrate that neither Alternate A nor Alternate B is economically feasible, neither being capable of generating any market level of return on invested risk capital. Accordingly, the project proponent has not made any further study of the (40%) percent reduced program, for it is tantamount to the no-build altlernative already to be studied.

Alternate Scheme A: Forty Percent (40%) Overall Reduction

This scenario evaluates a forty percent, across-the-board reduction of all program elements. In this configuration, the office building is reduced to 68,000 square feet and the hotel is reduced to 185,000 square feet, with approximately 225 rooms. 169 parking spaces would be provided on three underground levels.

The pro forma for this alternate demonstrates that the percentage return on investment would be insufficient to merit its implementation.

Alternate Scheme B: Deletion of Office/Reduction of Hotel

In this scenario, the entire office component would be eliminated and the reduced hotel (253,200 square feet) would be divided into two smaller towers, separated by the visual easement corridor. The room count would be reduced to 300 in this alternative, with 150 rooms in each tower. An estimated 225 parking spaces would be required in this program.

Economic analysis of this scenario indicates an even poorer performance in generating an acceptable return. Pro forma capital cost and operating statements for alternate schemes A and B are included in Appendix G, Chapter IV. They clearly demonstrate that neither is economically feasible, neither being capable of generating any market level of return on invested risk capital.

IV. Environmental Issues

INTRODUCTION

Pursuant to the Scope Memorandum and July 7, 1986 letter titled "Revisions to Scope for Hotel and Office Building (EOEA #4946) for this Draft EIR (see Appendix 1), the following Environmental Issues are discussed in regard to the proposed development of Parcel 7:

A Traffic and Parking

B Air Quality

C Transit Facilities

D Sewerage and Water Services

E Visual Quality and Urban Design

F Shadow Analysis

G Wind Analysis

H Haymarket Pushcarts

I Archaeology

J Construction

IV. A Traffic & Parking

INTRODUCTION

This report discussses the transportation impacts of the development project proposed for the Parcel 7 site in Downtown Boston. It also identifies an Access Plan which will help to alleviate existing and future traffic conditions in the area. The report has been prepared for submission to and use by the City of Boston in conformance with a Scope of Work approved by the Boston Redevelopment Authority and the Boston Transportation Department.

The Parcel 7 Development Proposal

The proposed development will consist of approximately 405,000 square feet of hotel, office and retail uses to be completed by the year 1989. Parking will be provided for on-site uses and will be located below grade. The project is designed to work well with the nearby Haymarket pushcart facilities and will be very well served by public transportation. Pedestrian enhancements in the form of covered arcades will also be provided. Table 1 summarizes the anticipated development usage.

TABLE 1
ANTICIPATED DEVELOPMENT USAGE
(SQUARE FEET)

Type of Use	1989
Hotel (375 rooms)	275,000
Office	120,000
Retail	9,700
Total	404,700
Parking Spaces	375

The proposed site is currently an unpaved lot that provides permit parking for City of Boston employees.

Study Area

The transportation study area and analysis intersections were established in consultation with personnel of the Massachusetts Executive Office of Environmental Affairs, MEPA Unit, as well as with the Boston Redevelopment Authority (BRA) and the Boston Transportation Department (BTD). The area is bounded by New Chardon Street, Blackstone Street, North Street and New Congress Street. In addition, the Sudbury Street intersection with Cambridge Street is included. Figure 1 shows the project site in relation to Downtown Boston. The street system includes two-way flow on North and New Congress Streets, and one-way operation on Sudbury Street (eastbound), New Chardon Street (westbound) and Blackstone Street (southbound). Haymarket Station, serving the MBTA Orange and Green Lines, is located just north of the site, although actual station access is provided on the site itself.

Study Methodology

The transportation study was conducted in three distinct phases. Phase I involved inventorying the existing travel demand characteristics in the area. The inventory included researching previous transportation reports as well as conducting new observations of area travel demands. Observations of traffic and pedestrian volumes were conducted at several locations (shown in Figure 2) during the morning and evening peak hours. Adjacent roadway volumes were recorded over 24-hour periods. Some of the counts were made in 1984 during an earlier analysis of Parcel 7. Others were made in 1986 at new locations or to validate the earlier counts.

Data collected during the inventory period were assembled and used to define the existing transportation network as a base condition for subsequent analysis. As required by the Massachusetts Executive Office of Environmental Affairs, MEPA Unit, in its scoping memorandum for this project, data were collected on a Friday to represent a worst case condition when local pushcart operators have an established right to set up their stands along Blackstone Street (west of the median island only) and a portion of Hanover Street on Friday and Saturday. In addition, pushcarts often set up on North Street at Blackstone Street. This activity results in Hanover Street being blocked and a loss of travel lanes on

Figure 1

Site Location Map

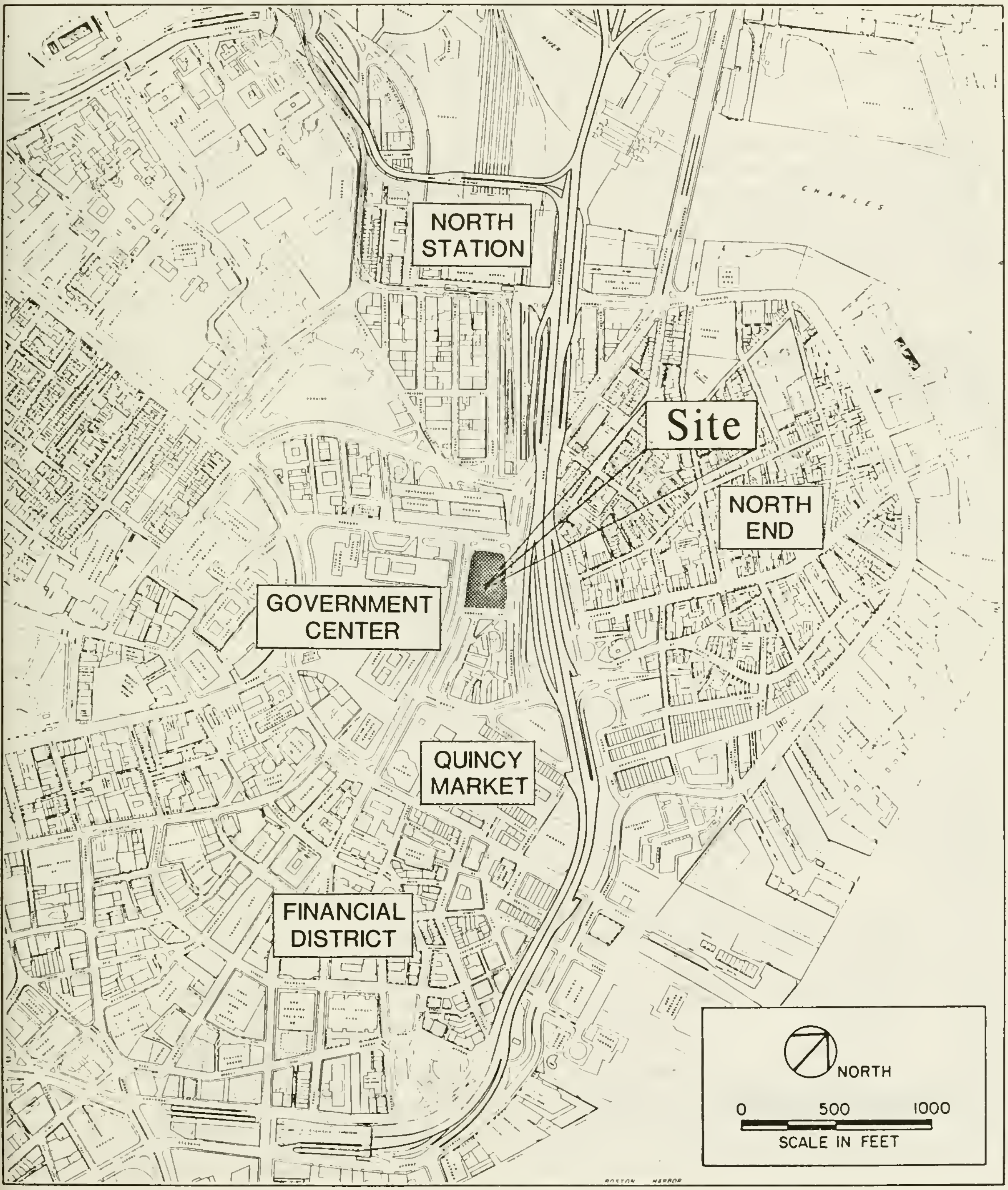
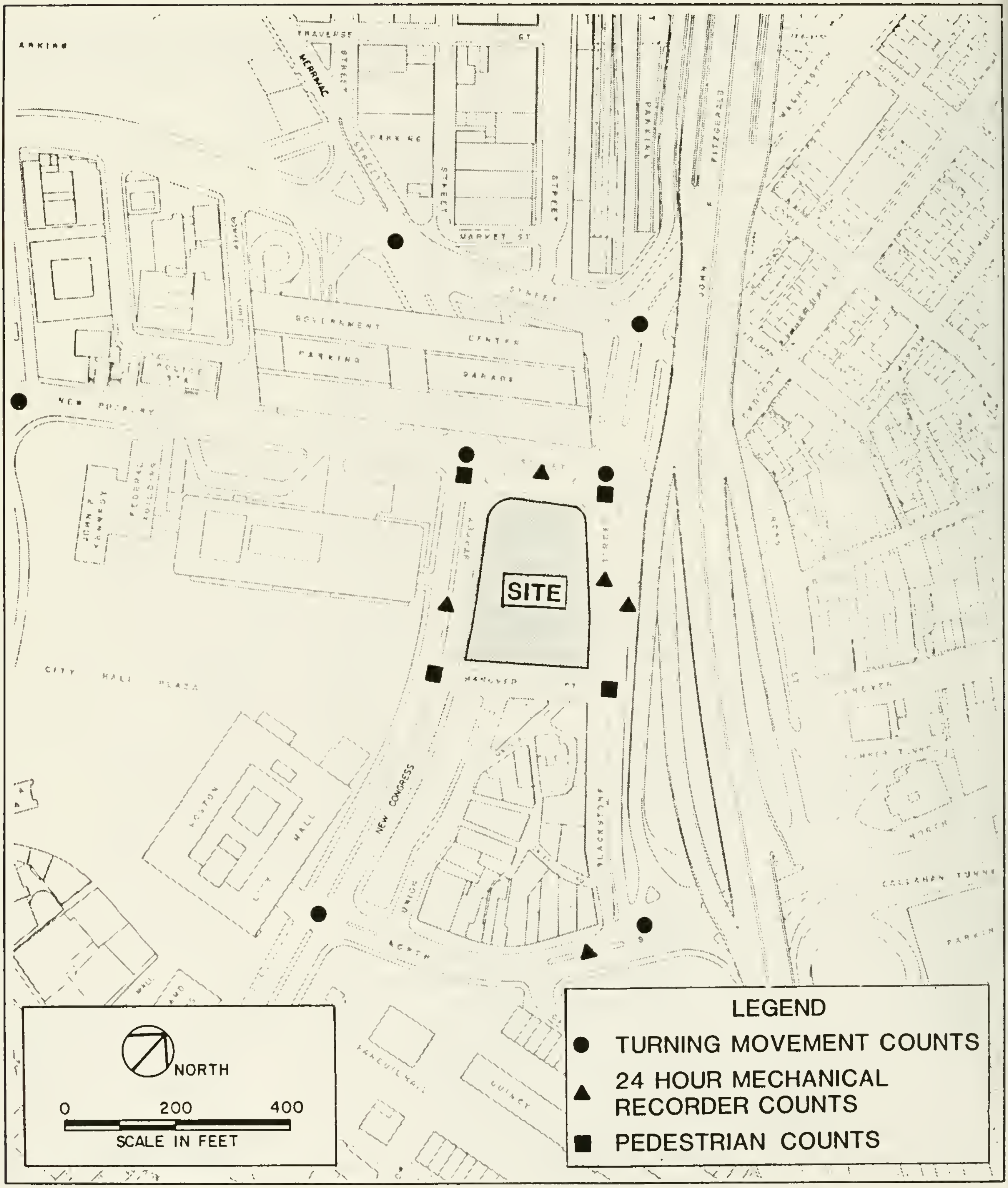


Figure 2

Traffic Survey Locations



Blackstone Street east of the median due to delivery vehicles, which significantly restricts local circulation and capacity of the roadway system.

Phase II of the study built upon the data base in Phase I and established the framework for evaluating the transportation impacts of the proposed project. In this phase, specific travel demands of the Parcel 7 development proposal were assessed along with demands created by other future area developments. Estimates were made for all transportation modes; however, emphasis was placed on traffic and parking demands.

The final study phase included evaluation of the impacts of the project on the transportation system, identification of potential measures to mitigate adverse impacts, and development of an Access Plan.

DESCRIPTION OF THE ENVIRONMENT

The roadways within the study area consist of both local and arterial streets, and a limited access highway.

Street System

Access/Circulation/Traffic Control

The street system within the study area provides both regional and local access from all directions.

- The Central Artery, with exit ramps to New Chardon Street and to North Street, provides a link from the north and west. Access from the south is circuitous, with the only exit ramp located on Causeway Street at North Station.
- The Sumner and Callahan Tunnels provide access between the site and East Boston/Logan Airport.
- Hanover Street and North Street provide local circulation in addition to access from the North End Community.
- Blackstone Street provides local circulation and a link from North Washington Street and the Charlestown Bridge to provide access from Charlestown and other points north.

- New Congress Street is part of the local circulation system and also provides access through the Financial District to the Central Artery and points south.
- Sudbury and New Chardon Streets form a one-way pair to provide access to and from Cambridge Street with connections to the west via the Longfellow Bridge and to the south via Tremont Street.

The local street system consists of one-way and two-way streets that result in a generally clockwise circulation around the project site. Figure 3 shows the area circulation pattern.

All major intersections in the area are controlled by traffic signals which are part of the City's system of coordinated signals in the Downtown area. Locations with signal control devices are shown in Figure 3.

Existing Traffic Volumes

Existing daily traffic, AM peak hour (8:00-9:00) traffic and PM peak peak hour (4:30-5:30) traffic are illustrated in Figures 4, 5 and 6, respectively. Table 2 shows daily as well as AM and PM peak hour traffic volumes for Sudbury Street, Blackstone Street, North Street and New Congress Street. The daily traffic volumes range from 5,000 vehicles on North Street (westbound) to 19,000 vehicles on Sudbury Street (eastbound). The AM peak hour traffic in the study area ranges from three to six percent of the daily traffic, while the PM peak hour shows a range of four to nine percent of the daily traffic.

Public Transportation System

The proposed project is well served by public transportation. Figure 7 illustrates the major components of the system in the vicinity of the project and their distances from the site.

Rapid Transit

Direct access to three of the rapid transit lines is within 1,000 feet of the site. The nearest station is Haymarket with access to both the Orange and Green Lines

Figure 3

Study Area Circulation

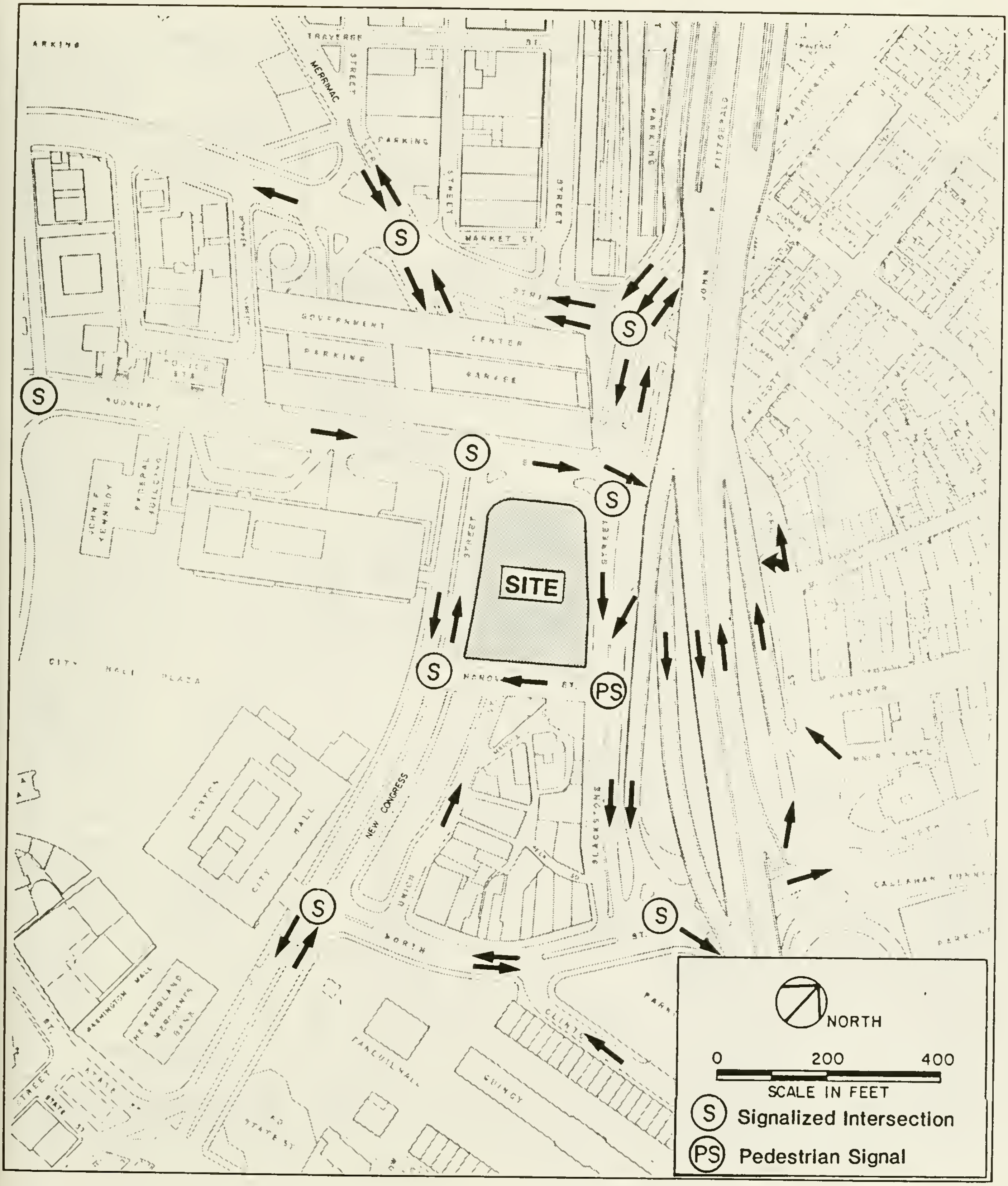


Figure 4

Existing Daily Traffic

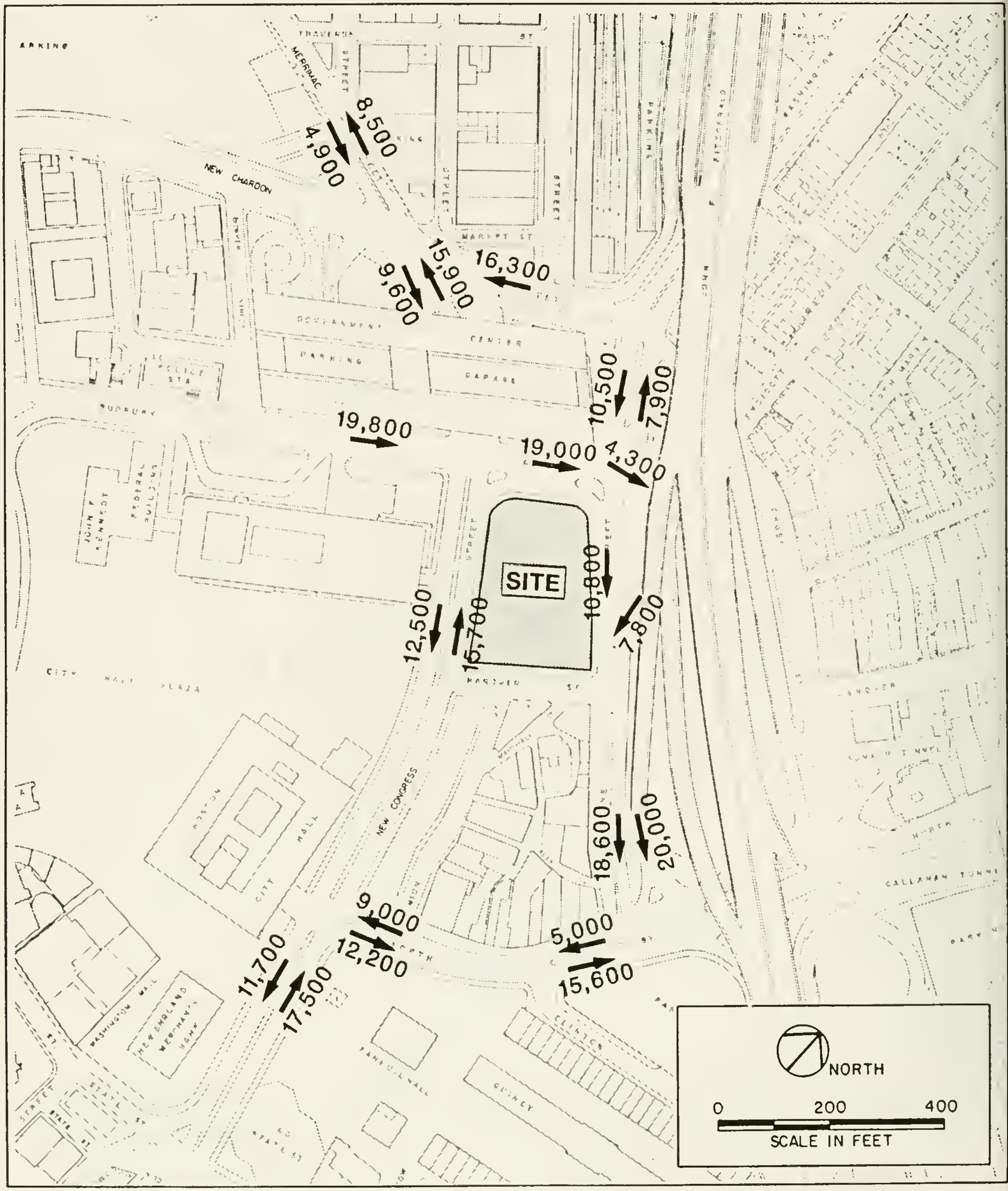


Figure 5

Existing A.M. Peak Hour Volumes

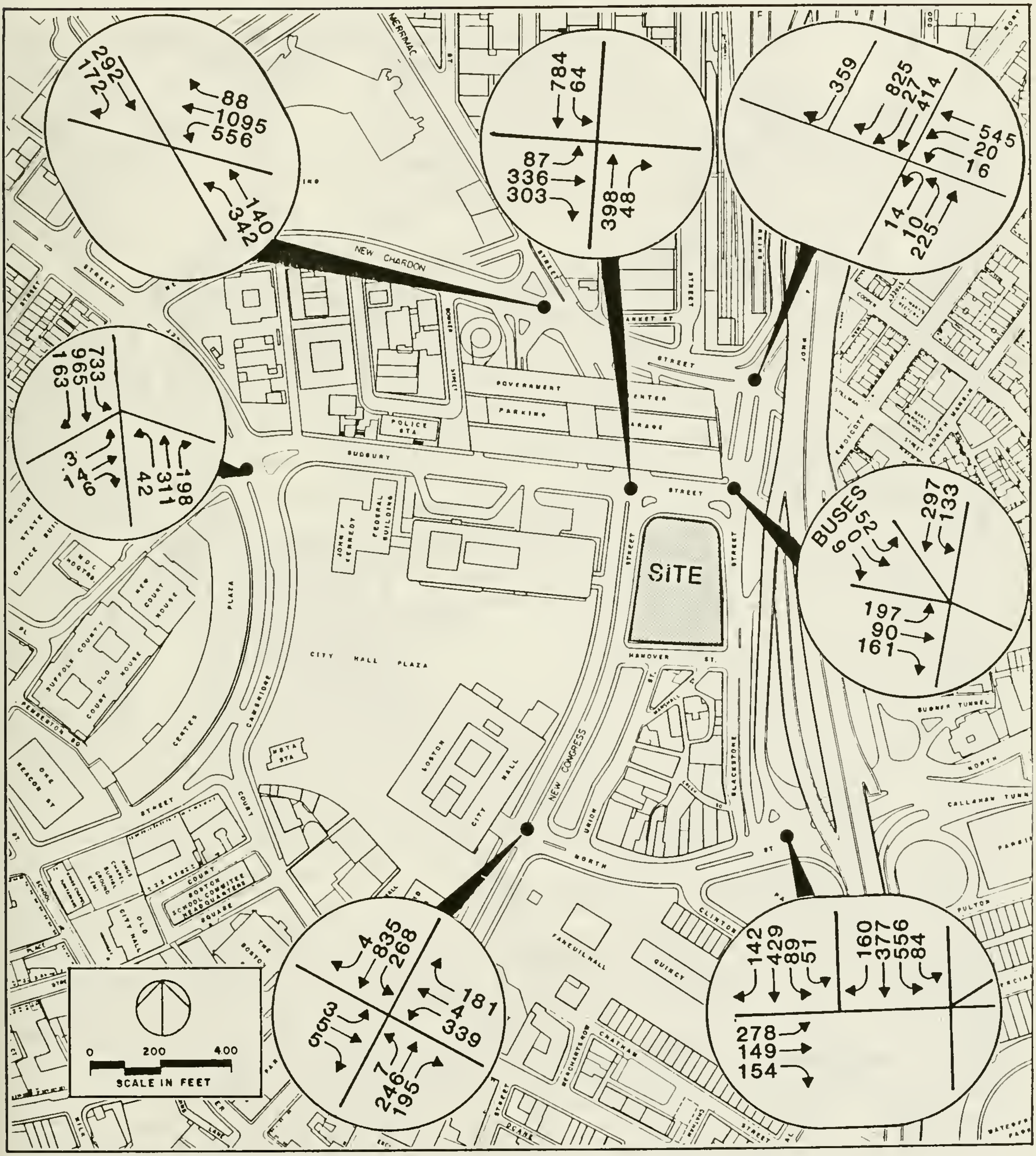


Figure 6

Existing P.M. Peak Hour Volumes

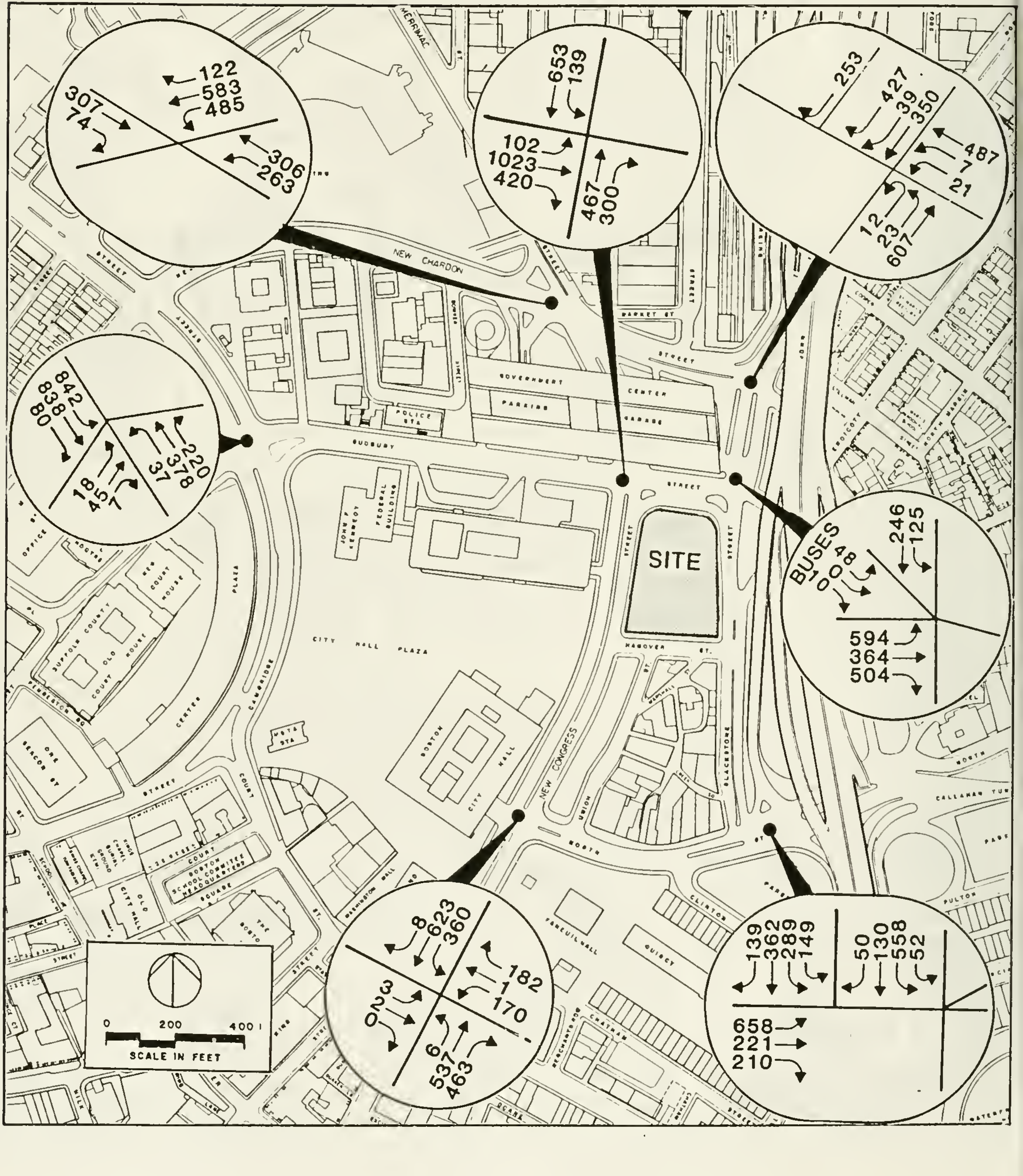
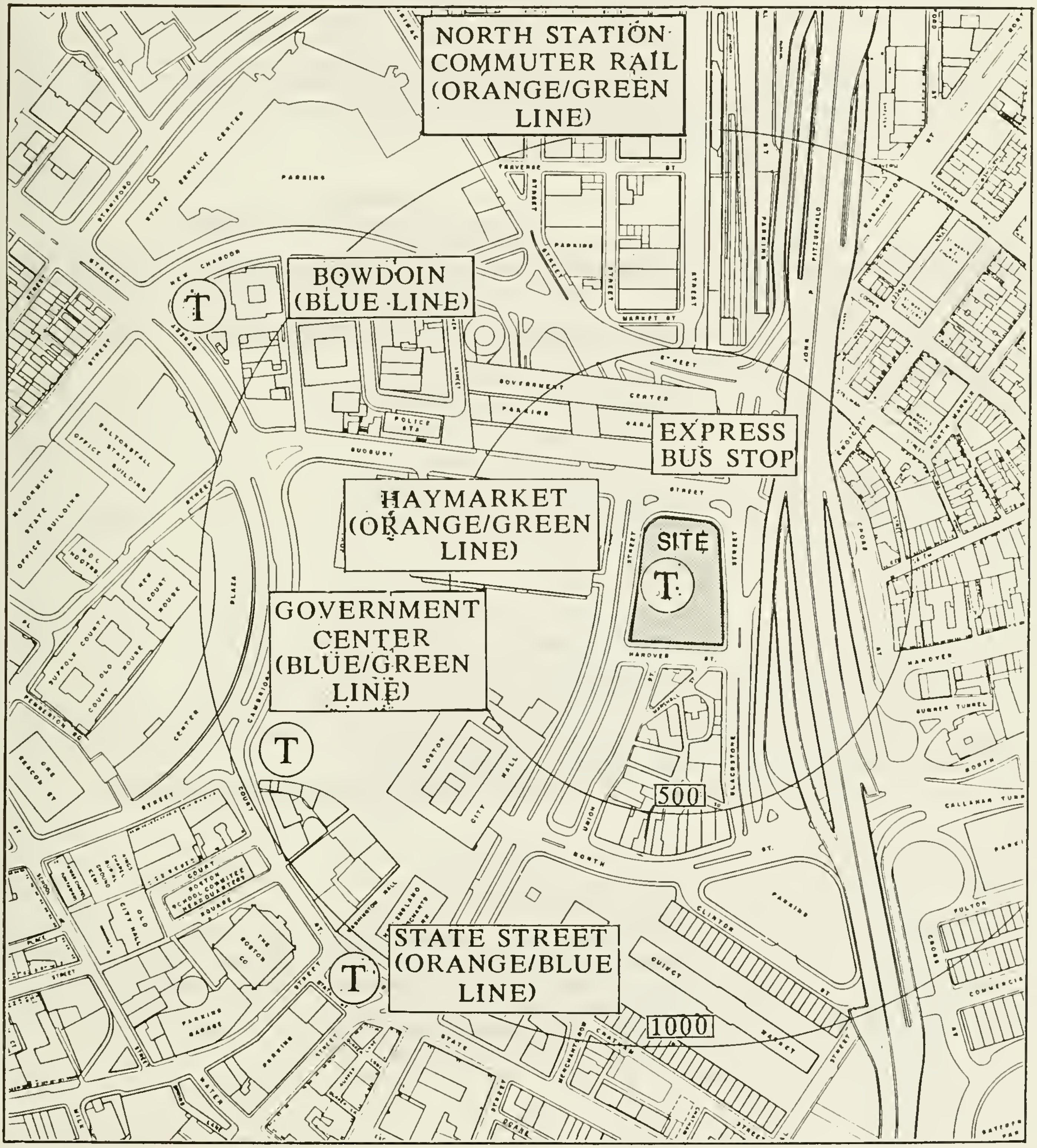


Figure 7

Location of Public Transportation


NORTH STATION COMMUTER RAIL (ORANGE/GREEN LINE)
BOWDOIN (BLUE LINE)
T
EXPRESS BUS STOP
HAYMARKET (ORANGE/GREEN LINE)
SITE
T
GOVERNMENT CENTER (BLUE/GREEN LINE)
T
500
STATE STREET (ORANGE/BLUE LINE)
T
1000

provided on the site and at the northeast end of the Government Center Garage. South and southwest of the site are the State Street (Orange and Blue Lines) and Government Center Stations (Green and Blue Lines). Access to the Red Line is available at the Park and Washington Stations, several blocks southwest of the site, either on foot or via Green or Orange Line transfers.

TABLE 2
LOCAL STREET TRAFFIC VOLUME SUMMARY

Street Segment	Daily Volume (vpd)[1/]	AM Peak Hour Volume (vph)[2/]	AM Peak Hour "K"[3/] Factor	PM Peak Hour Volume (vph)	PM Peak Hour "K" Factor
Sudbury St. (eastbound)	19,000	640	3.4%	1,640	8.6%
Blackstone St. (southbound)	18,600	720	3.8%	1,180	6.3%
North St. (eastbound)	15,600	610	3.9%	1,180	7.6%
North St. (westbound)	5,000	310	6.2%	200	4.0%
New Congress St. (northbound)	15,700	944	6.0%	1,440	9.2%
New Congress St. (southbound)	12,500	565	4.5%	975	7.8%

1/ vpd = vehicles per day
2/ vph = vehicles per hour
3/ "K" Factor = percent of average daily traffic.

Express Bus Service

The area is well served by commuter bus service, with MBTA express service provided to the Haymarket area from the north and to the Financial District from the west. Additional commuter bus service by private carriers is provided to the Haymarket area and to South Station.

The bus terminal points are within easy access of MBTA rapid transit lines, which further enhances access to the site.

These lines are well used and it is the MBTA's policy to encourage continued use by minimizing standees. Consequently, the MBTA will add buses as demand warrants.

Commuter Rail Service

In addition to the rapid transit system, the MBTA operates an extensive commuter rail system with one terminus at North Station (service to northern suburbs), a short distance from the site, and one terminus at South Station (south and west division), about three-quarters of a mile from the site. The system is operated by the Boston & Maine Railroad under contract to the MBTA and provides access to the rapid transit system at its terminus points.

In total, there are eight branches serving the north, west and south. According to the MBTA, additional cars are added when it becomes necessary to meet demand.

Pedestrians

Existing AM and PM peak hour pedestrian volumes were monitored at the intersections of Sudbury Street/New Congress Street, Sudbury Street/Blackstone Street, Blackstone Street/Hanover Street, and New Congress Street/Hanover Street. In addition, mid-block crossings were monitored. Figures 8 and 9 show existing AM and PM pedestrian movements by location and direction of travel.

Study area pedestrian flows during the morning peak hour show a general north-to-south pattern across Sudbury Street and along New Congress Street. Westbound crossings of New Congress Street are also significant. Much of this traffic represents walk trips to/from the Haymarket bus and rapid transit stations, the North End, North Station, Government Center Parking Garage, JFK Federal Building, City Hall or the Financial District. The major direction of pedestrian flow is generally reversed in the evening peak hour.

Figure 8

Existing A.M. Pedestrian Movements

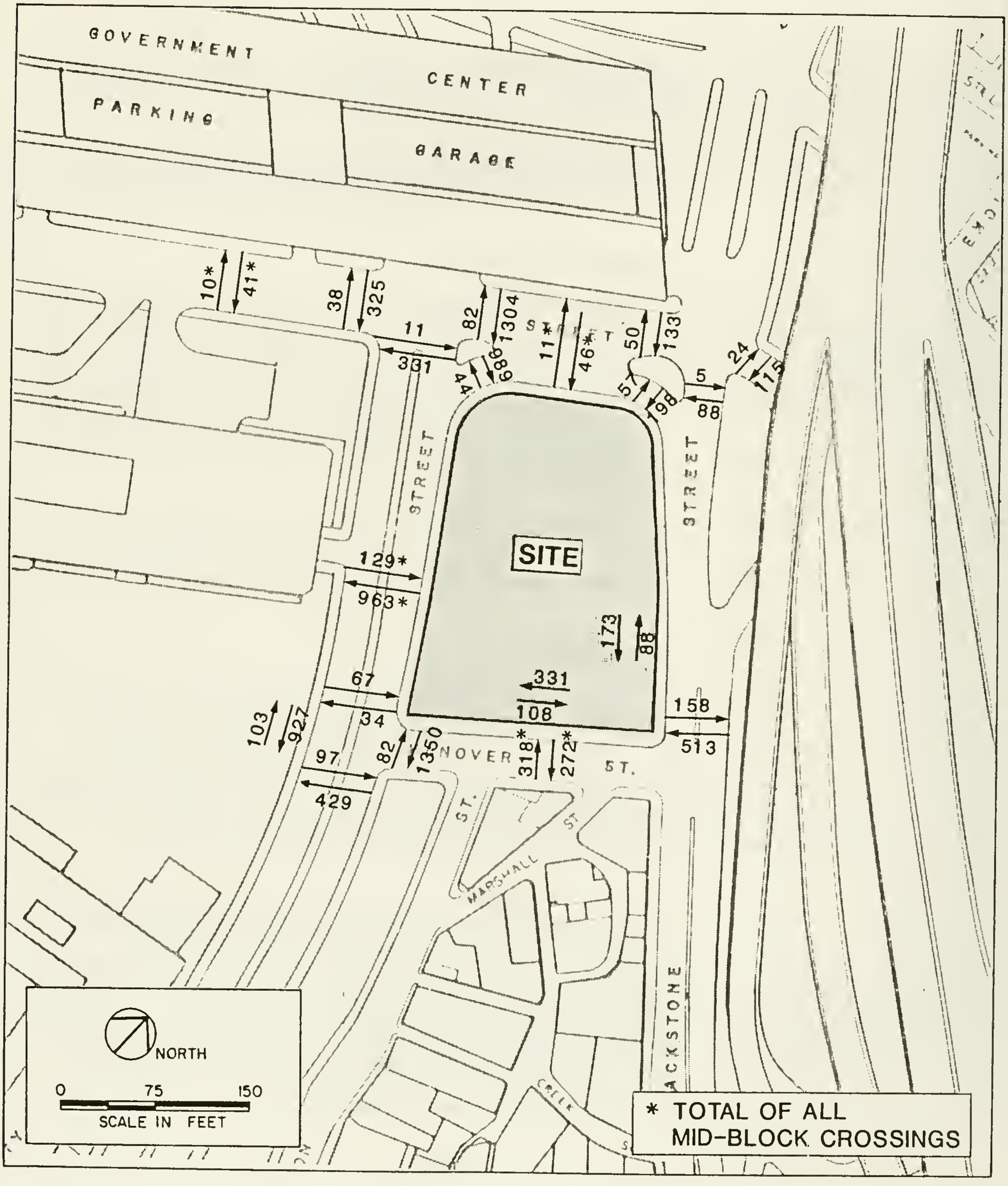
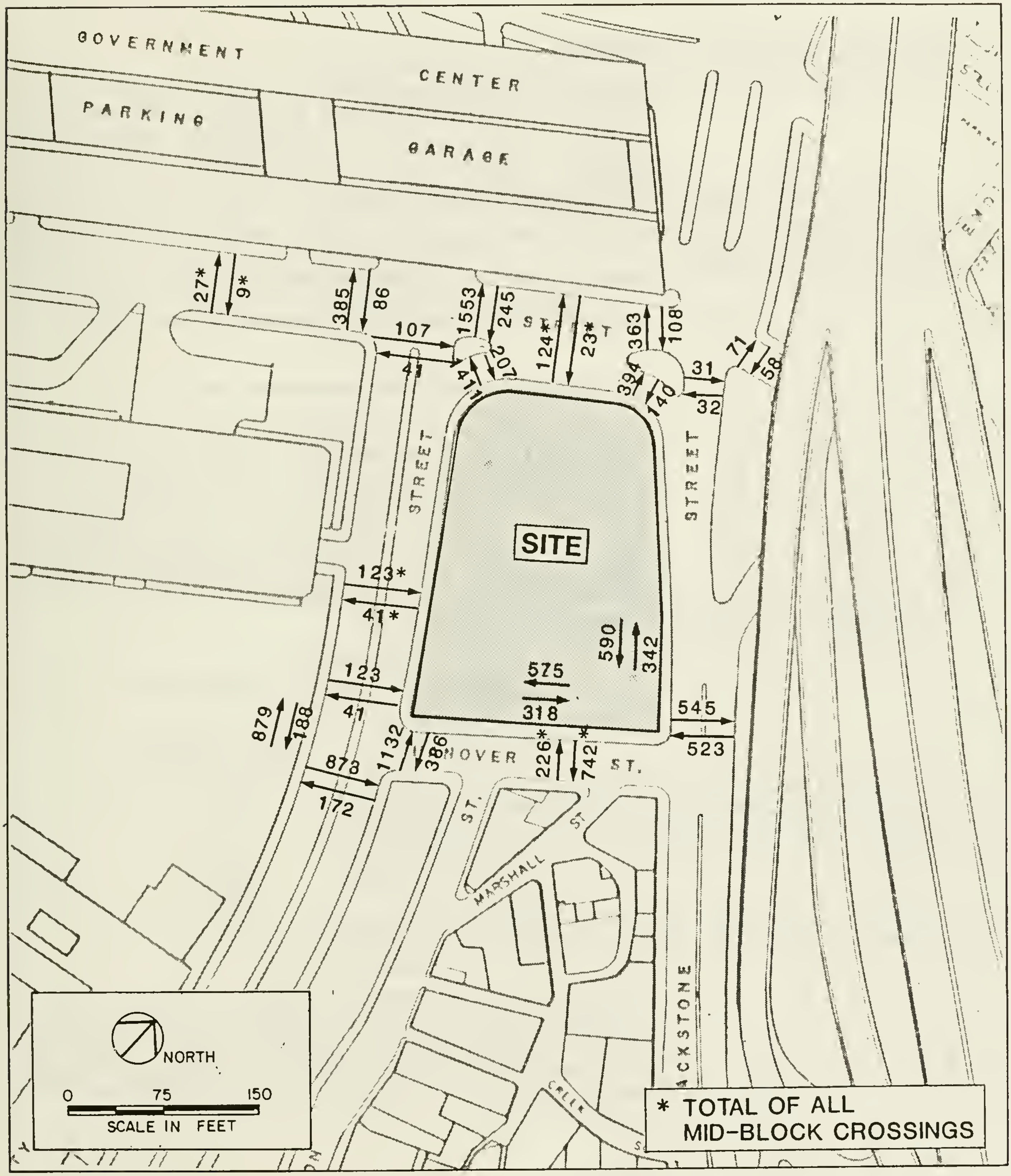


Figure 9

Existing P.M. Pedestrian Movements



Parking

Parking in Downtown Boston is a primary concern to the potential developer and other business and residential property owners. Parking in the downtown area is at a premium. According to a citywide survey, on-street parking is fully used while off-street spaces are used to 93 percent of capacity during the peak time of the day (12 Noon to 2 PM). However, parking demands are not uniform and vary by type of parker and location in the City. Long-term or commuter parking tends to be located in off-street facilities while on-street parking generally accommodates high-turnover shopper parking.

Off-Street Parking in the Government Center Area

Within 1,500 feet of the project site (about a five-minute walk) there are almost 50 different parking facilities ranging in size from small, 10-15 space private lots to the 1,886-space Government Center Garage, according to a 1982 citywide survey. These facilities provide a total off-street supply of approximately 5,100 parking spaces. Table 3 summarizes the parking supply in the area in relation to the proposed site.

TABLE 3
PARKING SUPPLY NEAR THE STUDY AREA

Distance from Site (feet)	Parking Supply
Less than 500	2,466
500-1,000	926
1,000-1,500	1,712
Total	5,104

A parking study conducted for the City of Boston included field observations of parking activity at all off-street parking lots in the area. Parking accumulation was noted during two times of the day -- 10:00 AM and 12:00 Noon -- on several days during October, 1982.

The results of this survey at the large facilities near the proposed site are summarized in Table 4, which shows that the noon hour accumulation exceeds the capacity at most facilities.

TABLE 4
1982 PARKING OBSERVATIONS AT SELECTED FACILITIES[1/]

Facility Name Or Location	Rated Capacity	Actual Noon Hour Usage
1-37 Commercial Street	597	698
15 Cross Street	65	24
99 Cross Street	142	109
New Congress Street[2/]	150	203
Cambridge Street - A	23	27
Cambridge Street - B	180	174
Government Center	1,886	1,881
Total	3,043	3,116

[1/] Source: "Parking in Central Boston: Meeting the Access Needs of a Growing Downtown," prepared for Boston Traffic and Parking Department, December, 1983.

[2/] Located on Parcel 7.

In addition, four facilities were surveyed during the 1984 Parcel 7 development study. Three of the facilities are common to the 1982 survey, and all are over capacity. The results of the 1984 survey are summarized in Table 5.

As a result of these surveys, it is clear that there is a current shortfall of long-term parking in proximity to the study area.

TABLE 5
1984 PARKING OBSERVATIONS

Facility Name Or Location	Rated Capacity	Actual Noon Hour Usage[1]
15 Cross Street	65	84
99 Cross Street	142	162
New Congress Street[2]	150	178
Under Central Artery, East of Government Center Garage	31	42
Total	388	466

---

[1] From field survey.
[2] Located on Parcel 7.

On-Street Parking in the Government Center Area

As with the off-street parking system, curbside parking appears to be used to capacity throughout most of the day. The Boston Parking Survey identified nearly 1,100 vehicles parked on-street in the vicinity of the Government Center/West End sections of Boston at 12 Noon. Virtually all of the available curbspace was utilized.

Future Transportation Improvements

The Boston Transportation Department is actively engaged in improvements to the signal systems in the Downtown area. The objective is centralized computer control of all subsystems. Existing controls are scheduled to be upgraded using real-time detection of traffic volume and density on selected links. Based on measured activity, one of several timing plans will then be brought into use. Phase 1 of this effort encompasses the Downtown and Financial Districts, including the study area. Implementation is scheduled for March, 1990.

As a result of the North Station Urban Renewal Project, two transportation improvements have been planned. The widening of Merrimac Street/Lomasney Way to two lanes in each direction will carry through traffic between Leverett Circle and the Haymarket/Government Center area.

Construction of these improvements is uncertain, however it is hoped construction will start in 1987 and be completed in 1988. Several alternatives are also presented for relocation of the MBTA's Green Line in this area. No timetable is available.

In addition to its potential relocation in the North Station area, the Green Line is scheduled for improvements to its vehicle fleet. New light rail vehicles (LRV) will be purchased which meet revised specifications, helping to alleviate recent equipment problems on the line. Over the next year or two, the MBTA expects to take delivery of 50 new vehicles. Another 50 may be ordered for delivery within the next three to four years.

As part of the planned Government Center Parking Garage improvement project, the Merrimac Street and northern New Chardon Street entrances will be eliminated. At the southern New Chardon Street entrance, the three entering lanes will be angled to provide greater queue capacity. In addition, exit lanes to Sudbury Street will be increased from two to three lanes. Construction is scheduled to start in the summer of 1986 and last for 18 months. When complete, the project will include new office (249,000 square feet) and retail (21,000 square feet) space, as well as an increase of parking spaces from 1,886 to 2,086 through restriping of the existing facility.

Although the depression of the Central Artery is a much longer-range improvement and is scheduled beyond the analysis year for the Parcel 7 development, it should be noted that this improvement as presently designed requires the elimination of Blackstone Street between Sudbury and Hanover Streets, while the rest of Blackstone Street will serve only local traffic. However, a new road connecting New Chardon and Sudbury Streets to North Street will be constructed just east of Blackstone Street. The project will eventually be linked to this new road.

Future Travel Demands

An estimate of project-generated traffic, as well as other development demands, was made using travel factors from various sources, including available reports and surveys of existing conditions. The Technical Appendix includes details on trip generation rates, mode split percentages, vehicle occupancy rates, peak hour percentages and other travel demand factors. This section highlights the key elements and results of the analysis.

Person Trips

Table 6 summarizes the total number of person trips estimated to be generated by the project in 1989. On a daily (Friday) basis, 7,311 two-way person trips are projected, about one-half in vehicles, about one-third via public transportation, and the rest on foot. The morning and afternoon peak hours will account for 667 (9.1 percent of the daily total) and 895 (12.2 percent of daily) person trips, respectively, with about the same distribution among vehicle, transit and walk modes.

TABLE 6
1989 PARCEL 7 PERSON TRIPS BY MODE[1/]

Mode		Daily	AM Peak Hour	Percent of Daily	PM Peak Hour	Percent of Daily
Vehicle	Number	3,599	312	8.7	433	12.0
	Percent	49.2	46.8		48.4	
Transit	Number	2,593	269	10.4	337	13.0
	Percent	35.5	40.3		37.6	
Walk	Number	1,119	86	7.7	125	11.2
	Percent	15.3	12.9		14.0	
Total	Number	7,311	667	9.1	895	12.2
	Percent	100.0	100.0		100.0	

1/ Total to and from the site.

Parcel 7 Vehicle Trips

Person trips were converted to vehicle trips using the vehicle occupancy rates shown in the Technical Appendix. As discussed earlier, a Friday analysis condition was used for vehicle impacts due to pushcart activity which reduces vehicular capacity on Blackstone Street and blocks Hanover Street completely. It was also assumed that all who wished to drive to the site would have a parking space available. This represents a worst-case traffic condition. Table 7 summarizes 1989 vehicle trips generated by the project. There will be 1,967 daily trips (on a Friday), including 192 and 222 during the morning and afternoon peak hours, respectively. Most vehicle trips will be generated by the hotel: about 72 percent on a daily basis and about 57 percent during the peak hours. Included in the total number of hourly vehicle trips are only about five to six hotel delivery trucks (0.12 trucks per day per room over an eight-hour day) and two to three office delivery trucks (0.21 trucks per day per 1,000 square feet over an eight-hour day). Retail truck activity is negligible.

TABLE 7
1989 VEHICLE TRIPS
GENERATED BY PARCEL 7 DEVELOPMENT[1/]

Use	Daily	AM Peak Hour	PM Peak Hour
Office	461	80	90
Percent of Total	23.4	41.7	40.5
Retail	78	1	6
Percent of Total	4.0	0.5	2.7
Hotel	1,428	111	126
Percent of Total	72.6	57.8	56.8
Total	1,967	192	222
	100.0	100.0	100.0

[1/] Friday analysis conditions.

Background Development Vehicle Trips

Travel demands generated by other development projects either being planned or under construction in the area of Parcel 7 were also identified. Several major projects were included. These are identified in Table 8, along with the estimated number of vehicle trips projected for each as obtained from impact reports filed for each project or, in the case of the Government Center Garage project, estimated directly from the travel demand factors presented in the Technical Appendix for the

Parcel 7 project. Vehicle trips for the Exchange Place project were added even though it is now occupied, since it was under construction at the time of the 1984 traffic counts used as a base for the Parcel 7 project.

Trip Distribution

Vehicle trips generated by the Parcel 7 project and other background developments were distributed over the available roadway system, based on available travel patterns in the Downtown area. All retail and office trips, along with hotel employee trips, were distributed separately from trips made by hotel visitors due to the different characteristics of each group. Table 8 presents trip distribution by geographic corridor for all project-generated trips. This distribution pattern is also shown in Figure 10.

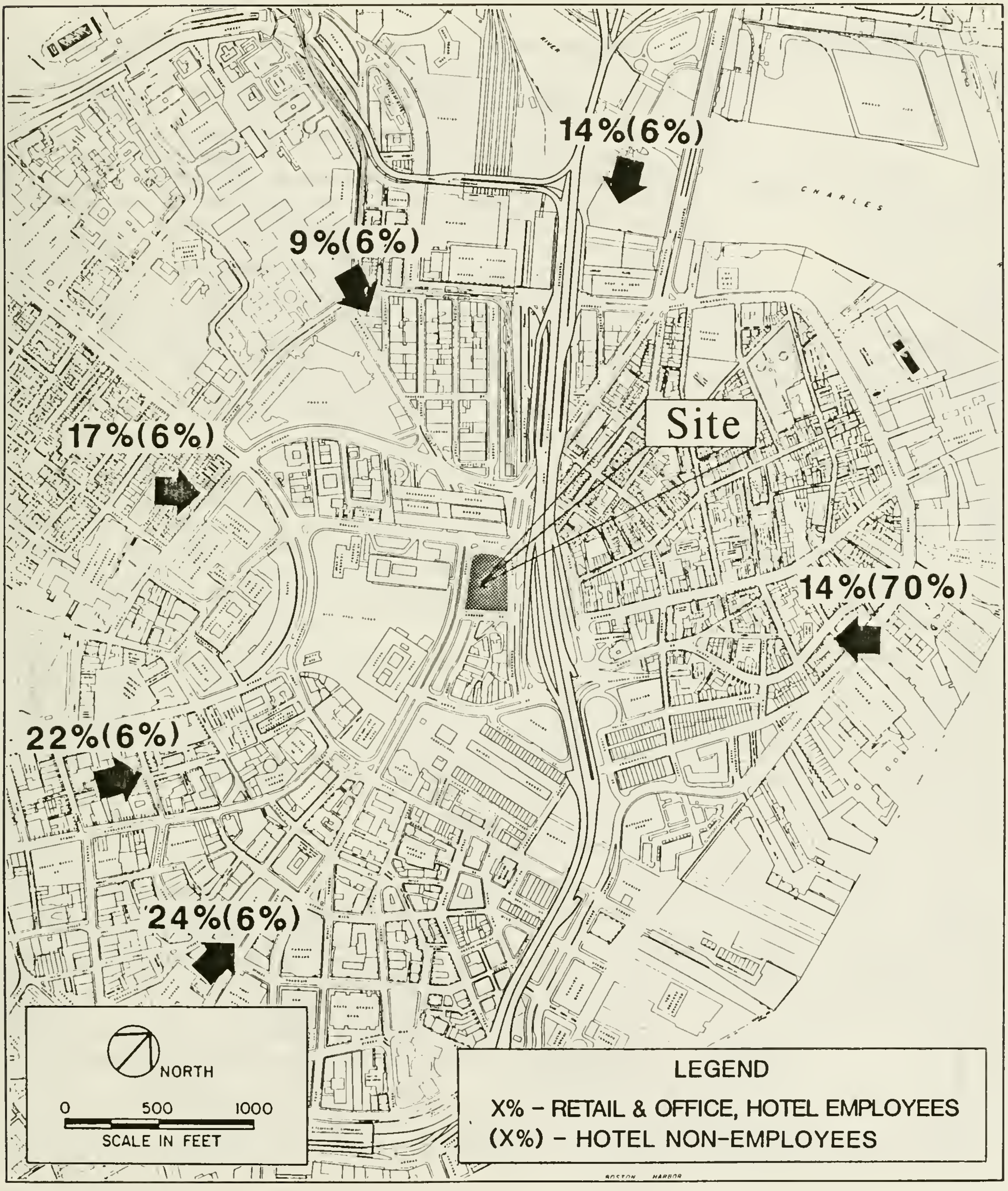
TABLE 8
1989 VEHICLE TRIPS GENERATED BY OTHER NEW DEVELOPMENTS

Development	Daily	AM Peak Hour	PM Peak Hour
North Station Urban Renewal Project (GSA Building)	6,970	1,105	1,181
Marketplace Center	1,660	205	265
Government Center Garage/Office/Retail	960	137	170
Custom House	634	76	91
Exchange Place (53 State Street)	2,140	751	751
75 State Street formerly 99 State Street)	1,726	309	317
Auto-Veyor Parking	337[1/]	118	105
Total	14,427	2,701	2,880

1/ Daily volume occuring only between the hours of 8:00 AM and 6:00 PM.

Figure 10

Trip Distribution By Corridor



LEGEND

X% - RETAIL & OFFICE, HOTEL EMPLOYEES

(X%) - HOTEL NON-EMPLOYEES

PROBABLE PROJECT IMPACTS

Roadway Impacts

The analysis of roadway impacts has been conducted for two 1989 conditions. First, the expected traffic increases related to developments other than the Parcel 7 development have been added to the observed existing volumes to develop a future No-Build network. Morning and evening peak hour volumes are shown in Figures 11 and 12, respectively. Second, the expected traffic increases related to the 1989 Parcel 7 development have been added to the first 1989 network to develop a future Build network. The 1989 AM and PM peak hour networks with the Parcel 7 development are illustrated in Figures 13 and 14, respectively. It should be noted that the project's access drive (designated as the through-block connector) is proposed to allow both in and out movements at the New Congress Street end and in only at the Blackstone Street end.

Table 9 compares the differences between the two 1989 network conditions. Traffic volume increases are generally fairly uniform among the streets in the study area due to the direction of the through-block connector, the adjacent street system's one-way pattern, and the trip distribution pattern. The increases are also fairly modest in both absolute and in percentage terms.

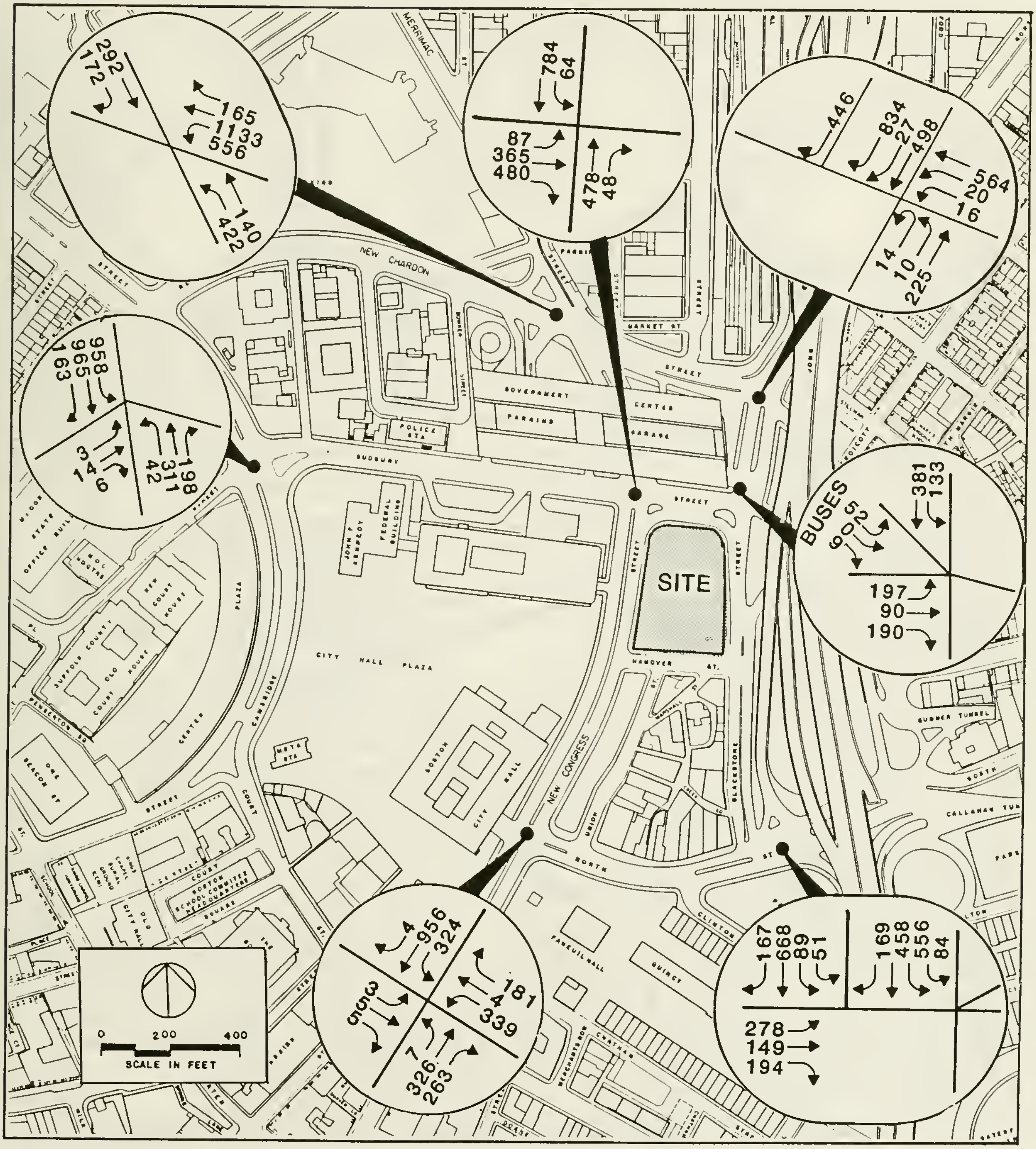
The largest increase in peak hour traffic occurs on New Congress Street (north of the through-block connector) which would result in an average increase of three vehicles per minute during the evening peak hour. The increases on this link are due to the routing of all exiting volumes from the site onto this segment.

Intersection Analysis

Level of Service (LOS) is a term used to denote the operating conditions on a roadway and is qualitatively measured as the effect of speed, delay, freedom to maneuver and safety. At Level of Service "A", an intersection operates at free-flow conditions. Typically, the intersection approach appears quite open and turning movements are made easily. Seldom, if ever, does a driver have to wait through more than one red signal indication.

Figure 11

1989 No Build A.M. Peak Hour Volumes



1989 No Build P.M. Peak Hour Volumes

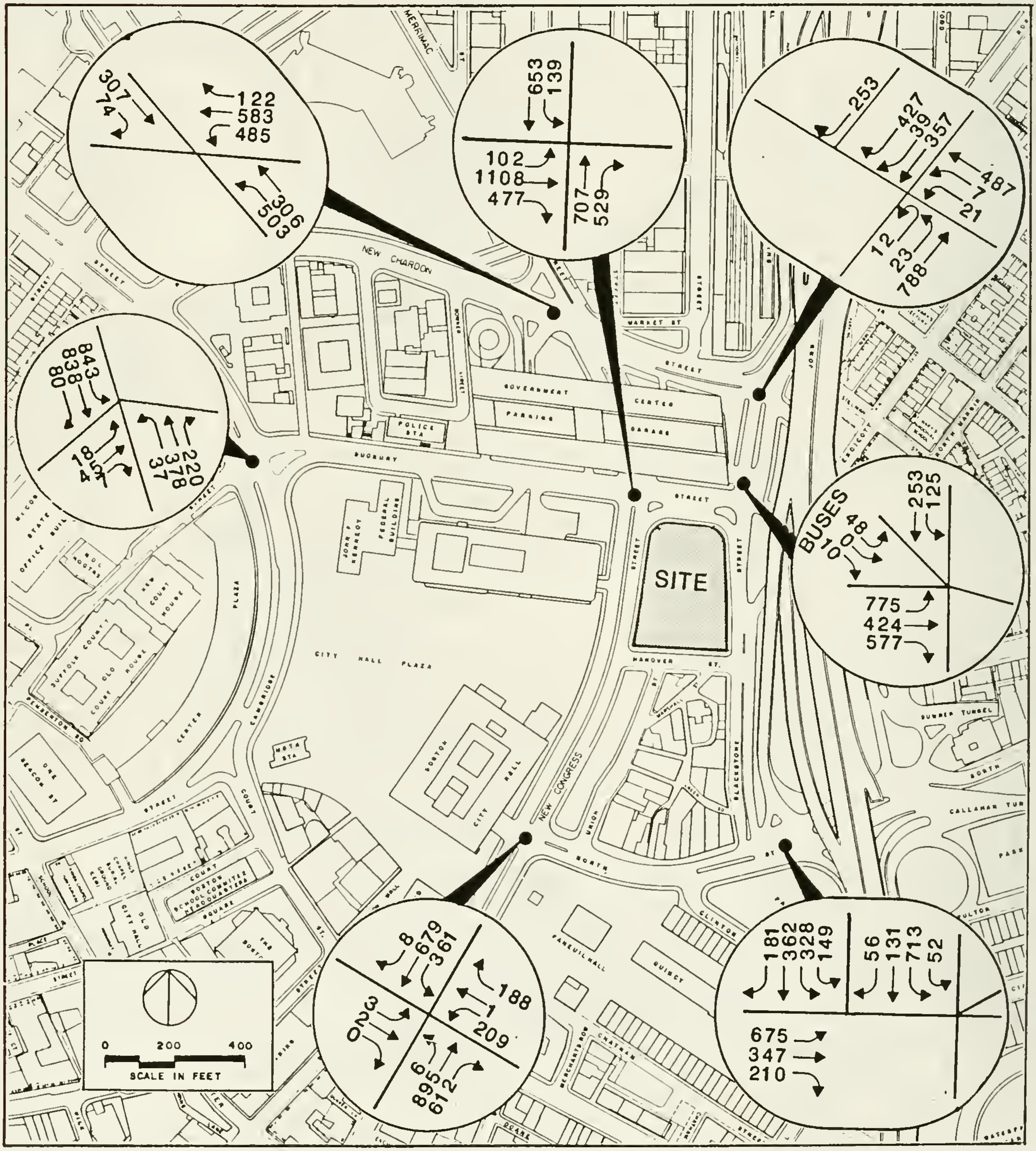


Figure 13

1989 Build A.M. Peak Hour Volumes

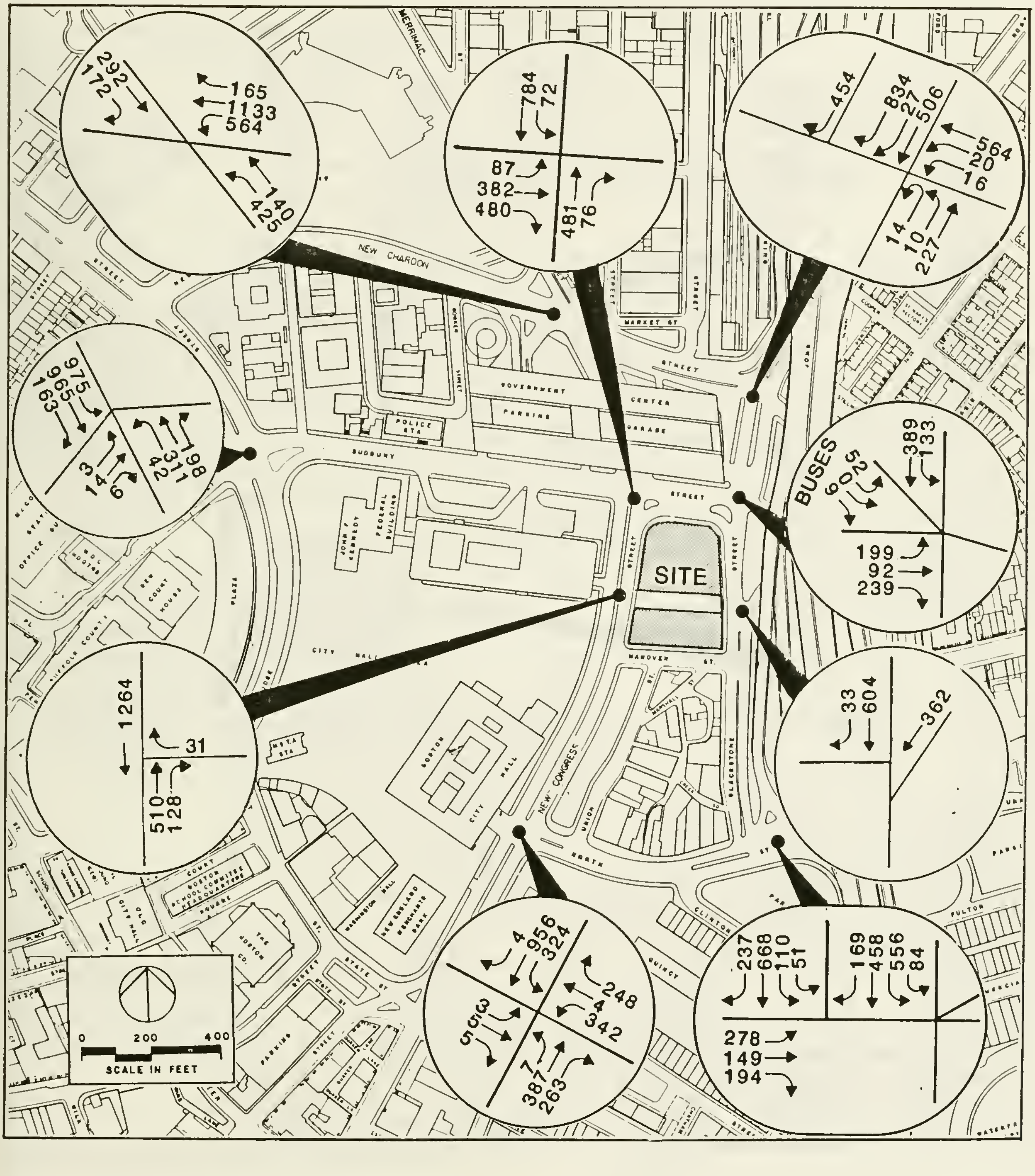


Figure 14

1989 Build P.M. Peak Hour Volumes

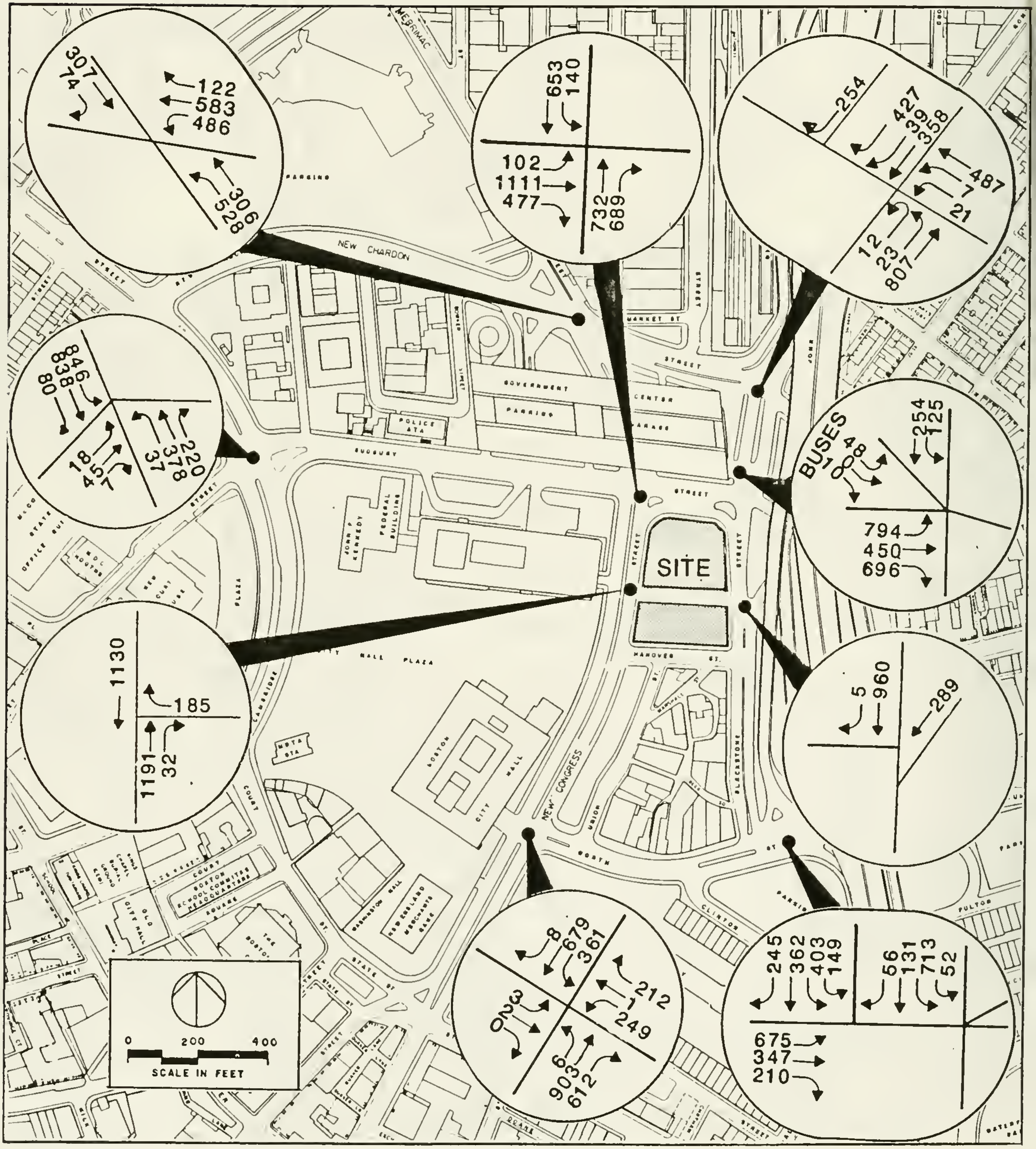


TABLE 9
1989 PEAK HOUR TRAFFIC INCREASES ON SELECTED ROADWAYS

	Peak	Traffic Volume (vph) 1/			Percent
Roadway	Hour	No-Build	Build	Increase	Increase
New Congress Street (North Street to Site Drive)	AM PM	1,794 2,134	1,922 2,166	128 32	7.1 1.5
New Congress Street (Site Drive to Sudbury)	AM PM	1,790 2,366	1,821 2,551	31 185	1.7 7.8
Merrimac Street (Sudbury to New Chardon)	AM PM	1,413 1,601	1,424 1,627	11 26	0.8 1.6
Sudbury Street (New Congress to Blackstone)	AM PM	477 1,776	530 1,940	53 164	11.1 9.2
Blackstone Street (Sudbury to Site Drive)	AM PM	580 840	637 960	57 120	9.8 14.2
Blackstone Street (Site Drive to North Street)	AM PM	975 1,020	1,066 1,159	91 139	9.3 13.6
North Street (Blackstone to New Congress)	AM PM	957 1,413	1,027 1,533	70 120	7.3 8.5

1/ vph = vehicles per hour

Capacity of the intersection occurs at Level of Service "E" and is characterized by consistent backups or queues of vehicles waiting to pass through the intersection. Capacity represents the maximum number of vehicles that can be processed during a given time frame. At capacity conditions, vehicles will always be waiting on approach roadways to use signal green time. In this situation, some motorists may experience significant delays and be forced to wait. There are many intersections in the Boston metropolitan area which operate at capacity levels during peak demand periods. Volumes in excess of the estimated capacity of an intersection represent Level of Service "F".

The analysis is based on the sum of critical volumes from each intersection approach and the ratio of this volume to capacity. The capacity is equal to the maximum sum of critical volumes associated with Level of Service "E". Basic level of service criteria are shown in Table 10. For each individual intersection, these critical-volume criteria were reduced by the percent of potential green time lost to exclusive pedestrian phases to account for pedestrian activity in the study area.

TABLE 10
LEVEL OF SERVICE CRITERIA
FOR SIGNALIZED INTERSECTIONS[1/]

	Maximum Sum of Critical Volumes			
Level of Service	Two Phase	Three Phase	Four Phase	Volume/ Capacity Ratio
A	900	855	825	0.00-0.60
B	1,050	1,000	965	0.61-0.70
C	1,200	1,140	1,100	0.71-0.80
D	1,350	1,275	1,225	0.81-0.90
E	1,500	1,425	1,375	0.91-1.00
F	Not Applicable			1.01+

[1/] Transportation Research Circular Number 212. "Interim Materials on Highway Capacity," Transportation Research Board, Washington, D.C., January 1980.

Table 11 summarizes the results of the intersection level of service analysis. Level of service is graphically summarized for morning and evening peak hours in Figures 15 and 16, respectively. While level of service analysis is based upon vehicle flow through a particular intersection, it does not explicitly account for impacts created by the operation of adjacent intersections, which may adversely affect the intersection under analysis. It should be noted that the intersection of North Street/Blackstone Street was analyzed as a signalized intersection even though the existing signals have been set on flashing operation by the Boston Transportation Department. Operating conditions should be substantially similar under both signal strategies.

In no case does the level of service decrease from the 1989 No-Build to Build conditions. The North Street intersection with Blackstone Street will operate at Level of Service "F" in both the morning and evening peak hours under both No-Build and Build conditions. This intersection currently operates at Level of Service "F" with V/C ratios of 1.09 and 1.03 in the morning and evening peak hours, respectively. The intersection of North Street and Congress Street will also operate at Level of Service "F" in the evening peak hour under both No-Build and Build conditions, although it will operate at Level of Service "D" in the morning peak hour.

It should be noted that although the southbound Blackstone Street approach is striped for two lanes, the inside lane is blocked by delivery trucks during the entire morning peak hour, and intermittently during the evening peak hour, due to the Friday pushcart activity in the Haymarket. Therefore, the analysis at this intersection assumes only a one-lane approach in the morning peak and only one lane for half of the evening peak. Since Friday is the only weekday when this occurs, the intersection will operate substantially better during all other days of the week when lane blockage does not occur. Mitigation measures to alleviate Friday conditions are discussed later in the report.

Through-Block Connector Analysis

A through block connector is planned through the project site between New Congress and Blackstone Streets, which will allow access into the proposed development from both New Congress and Blackstone Streets with only one

TABLE 11
INTERSECTION LEVEL OF SERVICE ANALYSIS

Intersection	Peak Hour	Existing V/C[1/]	Existing LOS[2/]	1987 No-Build V/C	1987 No-Build LOS	1987 Build V/C	1987 Build LOS
New Chardon Street/	AM	0.63	B	0.69	B	0.69	B
Merrimac Street	PM	0.54	A	0.56	A	0.57	A
New Chardon Street/	AM	0.51	A	0.53	A	0.54	A
North Washington Street	PM	0.39	A	0.45	A	0.45	A
Sudbury Street/	AM	0.56	A	0.65	B	0.66	B
Cambridge Street	PM	0.64	B	0.64	B	0.64	B
Sudbury Street/Congress	AM	0.48	A	0.53	A	0.53	A
Street/Merrimac Street	PM	0.66	B	0.83	D	0.88	D
Sudbury Street/	AM	0.25	A	0.28	A	0.30	A
Blackstone Street	PM	0.44	A	0.49	A	0.58	A
North Street/	AM	1.09	F	1.28	F	1.37	F
Blackstone Street	PM	1.03	F	1.17	F	1.26	F
New Congress Street/	AM	0.75	C	0.82	D	0.83	D
North Street	PM	0.92	E	1.07	F	1.11	F

1/ V/C = volume to capacity ratio. Theoretical capacity = 1.00.

2/ LOS = level of service.

Figure 15

A.M. Peak Hour Level of Service

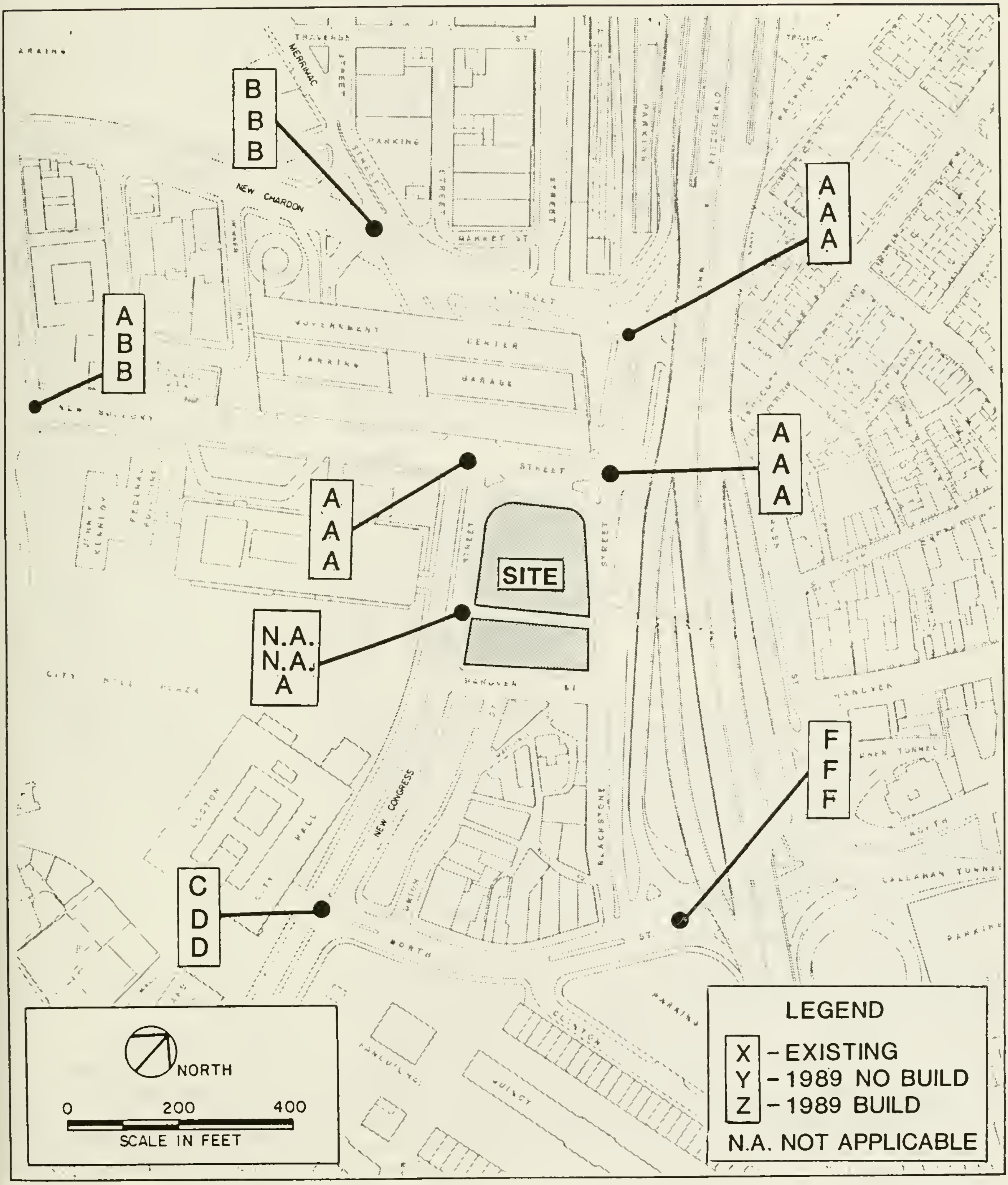
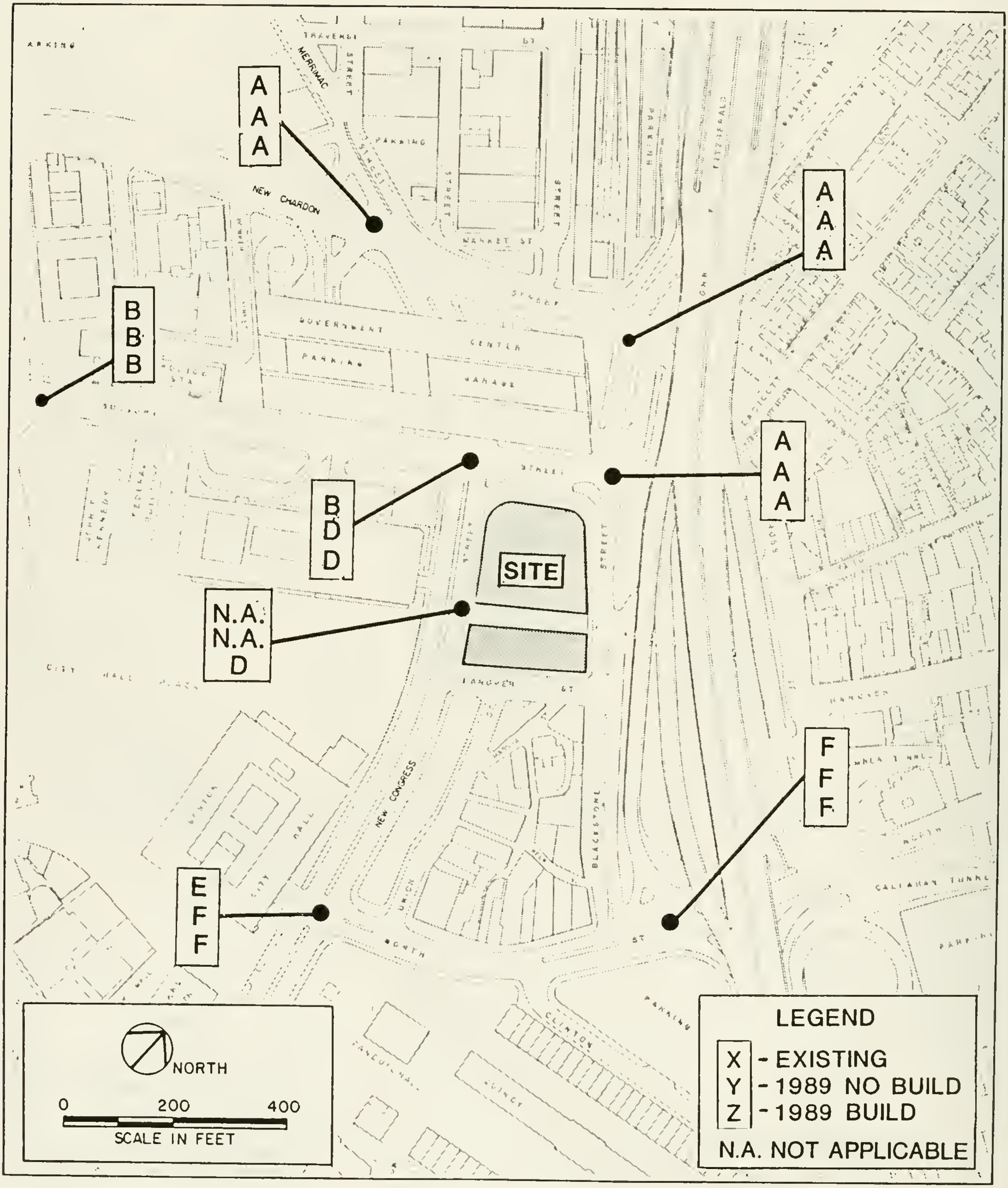


Figure 16

P.M. Peak Hour Level of Service



exit onto New Congress Street. The New Congress Street junction of this proposed roadway was analyzed as an unsignalized intersection to identify how it would operate with the estimated 1989 AM and PM peak hour traffic volumes shown in Figures 13 and 14, previously. The analysis involves estimating the percentage of acceptable gaps available for vehicles exiting the connector. The result is LOS "A" in the morning peak hour due to the relatively small number of peak-hour vehicle trips leaving the site and LOS "D" in the evening peak hour.

The intersection of the through-block connector on Blackstone Street does not lend itself to such an analysis since only a right-turn from the major roadway into the minor roadway (the connector) is involved. Therefore, no problem will be encountered here due to the one-way flow inbound.

The width of the connector will provide for good traffic flow on the connector itself, with recessed curb cuts to handle auto drop-offs/temporary stopping on both sides of the connector. A taxi waiting area has been proposed at the Hanover Street/Union Street intersection which, in conjunction with a hotel entrance/exit at New Congress Street/Hanover Street, will reduce vehicle activity on the connector itself.

It should be noted that the original concept for the through-block connector involved one-way eastbound flow from New Congress Street to Blackstone Street. Analysis of this pattern indicated that the most significant traffic impacts would be on the two busy North Street intersections (at Blackstone and New Congress Streets) due to circuitous circulation. Based on these results, the project proponent modified the pattern to the present configuration. This improved V/C ratios at the North Street/Blackstone Street intersection from 1.41 to 1.37 in the AM and from 1.32 to 1.26 in the PM. Benefits realized at the North Street/New Congress Street intersection were from 1.14 to 1.11 in the PM (the AM remained the same at 0.83). Slight increases occurred at several locations to the north of the project site where intersection operation is in the range. This mitigation measure was built into the project at the analysis stage by the proponent rather than at the approval stage. Additional mitigation measures are proposed in a subsequent section.

Delivery Vehicle Impacts

As noted earlier, only five to six hotel delivery trucks per hour and two to three office delivery trucks per hour are anticipated, which should be accommodated easily by the project's four loading docks (three hotel and one office). This low level of activity is not expected to have any adverse effect on through traffic in Blackstone Street where the loading docks are located. Although trucks backing into the docks will cause some intermittent disruption to through traffic, the main capacity constraint is at the Blackstone Street/North Street intersection, which will not be affected by these maneuvers. Also, the project proponent has agreed to certain mitigation actions to relieve peak hour impacts.

Parking Impacts

Project Parking Demand

The number of parking spaces required by the project can be estimated by employing the same assumptions used in the trip generation forecasts for the project. Parking requirements are divided into long-term employee parking, short-term businss parking for office and retail, an short-term for hotel patrons. Based on the travel forecasts, it is estimated that the proposed project at full development will generate a theoretical demand for 367 parking spaces, broken down by type as follows:

	Office	Retail	Hotel	Total
Long-term (work)	127	6	35	166
Short-term 1/ (non-work)	39	2 1/	158	199
Total	166	8	193 2/	367

1/ For salesmen and suppliers only. No short-term demand estimated for shoppers due to small retail use involved.

2/ Based on 0.7 space per 1000 sf for downtown hotels from Highway Research Board Special Report 125, Parking Principles, 1971.

Project Parking Supply/Demand Summary

The proposed Parcel 7 development will include parking for about 375 vehicles. The project will be able to accommodate its theoretical parking demand (367) with the anticipated supply of 375 spaces, as indicated in the parking demand summary tabulation in the previous section. This is true for both the long and short-term demand components, since the project proponent has indicated that short-term spaces for office and retail use will be reserved. Thus, all project demands are met on site and the 41 short-term office and retail parkers will not be required to use the proposed 135 space Auto-Veyor parking facility proposed beneath Curley Park. The existing 150-space lot on the project site used for all-day permit parking for City employees will not be replaced on the site. The City has indicated that this need not be included in the overall parking supply/demand analysis for the project since the City itself will either repalce some or all of these spaces elsewhere or handle the demand with ridesharing/transit incentives.

Transit Impacts

The proposed project is expected to generate approximately 300 outbound transit trips in the heavier evening peak hour (246 inbound in the AM peak hour). Based on the 1982 cordon counts for Downtown Boston, 70 percent of transit trips are made by rapid transit. Therefore, a total of 210 outbound PM peak hour rapid transit trips can be expected to be generated by the proposed development. The assignment of project rapid transit trips is shown in Table 12.

TABLE 12
ASSIGNMENT OF RAPID TRANSIT TRIPS GENERATED
BY PROJECT DEVELOPMENT - PM PEAK HOUR OUTBOUND

Line/Direction	Percent Distribution	Project Trips
Red/North	12	25
Red/South	23	48
Blue/North	12	25
Orange/North	20	42
Orange/South	14	30
Green/West	17	36
Green/East	2	4
Total	100	210

Passengers on the Green and Orange Lines are expected to board at the on-site portal to Haymarket Station. Blue Line passengers will walk to Government Center or State Street to board. All Red Line, commuter rail and commuter bus passengers leaving South Station are assumed to board the Green or Orange Line at Haymarket and then transfer to the Red Line at Park Street or Washington in order to reach South Station. In order to be conservative, commuter rail passengers out of North Station are also assumed to board the Green or Orange Lines at Haymarket. In actuality, many of these passengers may walk directly to the loading points of their final transit mode, although it was decided to conservatively assume most transit passengers will load at Haymarket due to the convenience. Based upon these assumptions, 229 passengers can be expected to board rapid transit lines via the on-site portal to Haymarket Station.

These levels of new transit riders can be absorbed by the rapid transit lines serving the site with little, if any, impact.

Pedestrian Impacts

Future project-generated pedestrian trips (which include both "walk mode" and "transit mode" previously discussed) have been identified as follows: AM peak hour - 355; PM peak hour - 462. Through review of transit station locations and an estimated sub-mode split (70 percent rapid transit, 23 percent bus and 7 percent commuter rail, based on the 1982 Cordon Count, peak hour walk trips have been assigned by percentage to streets and directions of travel. The actual pedestrian trips generated by the project are shown in Table 13.

As can be seen from a comparison of Table 13 with existing peak hour pedestrian volumes (see Figures 8 and 9), project-related pedestrian trips represent a minimal increase. Existing AM peak hour pedestrian trips total about 2,300 from all directions toward the site, compared to 318 new incoming trips (355 two-way) generated by the proposed development. Similarly, PM peak hour trips currently total about 3,700 away from the site, as opposed to 401 new outbound trips (462 two-way) to be added. A conservative sidewalk capacity analysis indicates that expected pedestrian flow rates on Congress Street are likely to result in good levels of service (B to C range) in the peak hours, with or without the new pedestrian activity generated by the project. Levels on other streets will be considerably less. Therefore, no significant impact to the surrounding sidewalk system is anticipated due to the project.

TABLE 13
PARCEL 7 DEVELOPMENT
PEAK HOUR PEDESTRIAN TRIPS[1/]

Direction[2/]	Percent	AM Trips	PM Trips
North	30	106	139
South	20	71	92
East	10	36	46
West	25	89	116
Haymarket MBTA Station at Site[3/]	15	53	69
Total	100	355	462

[1/] Both directions (two-way).

[2/] General direction relative to the project site.

[3/] Trips generated to on-site MBTA station will not affect the area street system.

Construction Impacts

Construction Employee Trip Generation and Parking

The number of workers required over the two-year construction period will vary, but it is estimated that the peak at any given time will be about 125 workers. Trip generation by construction workers is a direct function of employment levels. Assuming an auto occupancy of two or three persons based on the shortage of parking, current costs of parking and the greater inclination of construction workers to carpool, the 125 employees during the construction period would generate from 42 to 63 trips each peak period if all employees commute by automobile. In fact, a portion of the construction workers will likely utilize public transportation due to the downtown location of the site and its good accessibility via transit. In addition, construction workers generally travel before the peak hours, so they do not add to commuter peak hour traffic. Finally, given the many years of continuous construction activity in this area of the City, construction-related parking activity is already part of the background condition. As a result, no significant impact to the area roadway system is anticipated from construction worker vehicle trips.

It is assumed that for the first six to eight months of construction, any construction-generated vehicle trips will either park in available spaces in the area or that workers will shift to rapid transit. This assumption is reasonable in light of the recently completed Copley Place development, a large project for which no construction parking arrangements were made. The daily cost of off-street parking in the area will also encourage lower auto use. After the first six to eight months of construction, the project garage will be completed and could be made available for worker parking. Up to 100 spaces may be available during the remainder of the construction period.

Street Closure/Lane Blockage

It is anticipated that construction of both project buildings above ground level will proceed at the same time and take approximately 18 months. During that period, no street closures or travel lane blockages are proposed. However, the use of a narrow portion (no more than the curb lane) of New Congress, Blackstone and/or Hanover Streets is anticipated. Minimal impact would occur due to such activity since current curb lane usage precludes travel in these lanes. The curb areas would possibly provide space for a mobile crane which will service both buildings and provide for pickup of construction materials. The Haymarket pushcart operation would be affected only to the extent that the curb lane on Blackstone and Hanover Streets might be utilized for construction-related activity (see proposed Access Plan).

Delivery of Construction Materials

Major construction components are expected to be concrete, steel, brick and granite. All deliveries of construction materials and equipment will be made along the curb lane of either New Congress, Blackstone or Hanover Street, as noted above. As a result, unloading will not interfere with area traffic flow. Only two to three concrete trucks are expected to be at the site at any one time. This number of trucks can be accommodated at the same locations, thereby avoiding blocking lanes which carry through traffic.

The exact source locations of construction materials are not known at this time, but it is estimated that they will be roughly divided between north and south of the City. All deliveries from the north are expected to access the site via the Central Artery by exiting at New Chardon Street/Haymarket, while deliveries from the south would come via the Central Artery and exit at Atlantic Avenue/High Street or at North Station/Causeway Street. Returning vehicles would reach the Central Artery or Surface Artery directly from Blackstone Street. Because of the close proximity of the site to the Central Artery, trucks delivering construction materials should have a minimum impact on downtown streets.

Supplementary Analysis

The traffic analysis was conducted for three additional conditions:

1. Assuming a break in the New Congress Street median opposite the site entrance. This would give traffic from the north and west a more direct connection without passing through the congested North Street intersections with Blackstone Street and with New Congress Street. Analysis of this condition was requested by the Massachusetts Executive Office of Environmental Affairs, MEPA Unit.

2. Assuming an expansion of the proposed project sidewalk approximately 15 feet into Sudbury Street, resulting in the elimination of one travel lane. This condition was evaluated due to the City's interest in providing a stronger pedestrian linkage to the Government Center Parking Garage/Haymarket area.

3. Assuming both conditions described above.

[illegible]

The results of these analyses are summarized in Table 14. It can be seen that no change in level of service occurs with the introduction of the median break. As expected, the V/C ratio becomes slightly higher at the intersection of Sudbury/New Congress/Merrimac Streets in the morning peak hour, while the V/C ratio slightly declines in both peak hours at Sudbury/Blackstone Streets. The small changes reflect the relatively low volumes of trips to/from the north and west. In all cases, the addition of a median break would only result in a 0.01 change in V/C ratios. A gap analysis procedure used to describe traffic operations at unsignalized intersections was applied at the median break. Based on the technique, it has been determined that vehicles turning left into the site would operate at Level of Service "A" in the morning peak hour and Level of Service "B" in the evening peak hour. A lane of sufficient storage capacity could be provided in the existing wide median to safely hold left-turning vehicles.

The loss of capacity due to the expansion of the sidewalk into Sudbury Street is relevant only to the Sudbury Street/New Congress Street/Merrimac Street intersection. The loss of one lane on Sudbury Street and the right-turn lane into Sudbury Street does not affect the morning peak hour level of service, but the decrease in capacity reduces the evening operation from Level of Service "D" to "E".

The combination of the two alternatives also provides the same results as the median break alone, except at the Sudbury Street/New Congress Street/Merrimac Street intersection. Under these conditions, the results of the morning peak hour analysis remain essentially the same as the base case at this intersection, while the evening level of service decreases from Level of Service "D" to "E".

Generally, the various alternatives do not significantly affect traffic operations either adversely or beneficially. The only change in level of service (LOS "D" to LOS "E") occurs at the Sudbury Street/New Congress Street/Merrimac Street intersection due to the resulting loss of roadway capacity if the existing sidewalk is widened (pedestrian benefits will, of course, occur under this condition). There are some vehicular access circulation

TABLE 14
INTERSECTION LEVEL OF SERVICE ANALYSIS
COMPARISON OF 1989 BUILD ALTERNATIVES

Intersection	Peak Hour	Base Case[1/] V/C	Base Case[1/] LOS	Median Break V/C	Median Break LOS	Sidewalk Expansion[2/] V/C	Sidewalk Expansion[2/] LOS	Median Break & Expansion V/C	Median Break & Expansion LOS
New Chardon Street/	AM	0.69	B	0.69	B	0.69	B	0.69	B
Merrimac Street	PM	0.57	A	0.57	A	0.57	A	0.57	A
New Chardon Street/	AM	0.54	A	0.54	A	0.54	A	0.54	A
North Washington Street	PM	0.45	A	0.45	A	0.45	A	0.45	A
Sudbury Street/	AM	0.66	B	0.66	B	0.66	B	0.66	B
Cambridge Street	PM	0.64	B	0.64	B	0.64	B	0.64	B
Sudbury Street/	AM	0.53	A	0.54	A	0.51	A	0.54	A
New Congress Street/ Merrimac Street	PM	0.88	D	0.88	D	0.96	E	0.96	E
Sudbury Street/	AM	0.30	A	0.29	A	0.30	A	0.29	A
Blackstone Street	PM	0.58	A	0.57	A	0.58	A	0.57	A
North Street/	AM	1.37	F	1.37	F	1.37	F	1.37	F
Blackstone Street	PM	1.26	F	1.26	F	1.26	F	1.26	F
New Congress Street/	AM	0.83	D	0.83	D	0.83	D	0.83	D
North Street	PM	1.11	F	1.11	F	1.11	F	1.11	F

1/ 1989 Build scenario analyzed previously.

2/ The modifications in this alternative only affect the Sudbury Street/New Congress Street/Merrimac Street intersection.

benefits to be gained by users of the site from the north and west with the median-break option.

PROPOSED ACCESS PLAN

Demand Reduction/Management Strategies

As noted in the Impact Section, the project will have relatively little impact on vehicle or pedestrian traffic due to its small scale, mix of uses and good orientation to public transportation services. Nevertheless, looking at the broader Citywide perspective, reducing the amount of traffic generated is an effective alternative to simply providing the traffic operational improvements necessary to satisfy projected traffic growth. Much can be done to reduce automobile usage and thereby lessen the need for improvements or provide for the more efficient use of any improvements provided. The following describes measures designed to reduce the number of vehicle-trips into the project area. All have been discussed with the proponent, who has committed to implementing them insofar as it is within his ability to do so. He has also agreed to appoint a staff person (construction manager and/or property manager) to work with the City on access plan implementation.

Ridesharing

Ridesharing is an overall term that refers to encouraging commuters to ride in vehicles with other commuters rather than driving to work alone. The most common forms of ridesharing are carpools and vanpools. Increased ridesharing means that fewer vehicles will be using the roadways with the result that there will be less congestion. An additional benefit will be reduced fuel consumption, as fewer vehicle-miles will be traveled.

Carpooling and vanpooling programs are best implemented with a designated coordinator to oversee the program. Incentives will include:

1. Provision of on-site carpool/vanpool matching programs for tenant employees;

2. Participation in joint programs, where available, with other nearby tenants, organizations and companies;

3. Provision of promotional materials on ridesharing to tenants and their employees;

4. Investigation of the feasibility of leasing one or more vans through Caravan or other van leasing programs. The feasibility of a van will be dependent on the nature of the tenants, the location of employees' residences and the employees' hours of work.

Public Transportation

Another way to reduce the number of vehicles on the roadways is to encourage employees to use transit instead of driving to work. The proposed project site is located at the Haymarket rapid transit station (Orange and Green Lines) and is within walking distance of North Station commuter rail, the express bus stop at Haymarket, and the Government Center (Blue and Green Lines) rapid transit station. This provides an excellent opportunity for the project to generate high transit usage. The proponent will encourage further transit usage through the following measures:

1. Provision of an on-site location for sale of MBTA passes and private bus line tickets;

2. Encouraging project tenants to subsidize a portion of their employees' public transportation costs;

3. Have the hotel operator provide courtesy airport limousine/van service to reduce one- or two-occupant taxi or rental car trips.

4. Discuss with the hotel operator the desirability of working with the MBTA on various marketing devices to promote public transportation.

5. The project's property manager will cooperate with the hotel manager on coordinating and promoting public transport strategies.

6. Provision of bus, commuter rail and commuter boat schedules;

7. Provision of promotional and informational materials for all forms of public transportation; and

8. Working with the MBTA to provide a safe and attractive subway portal within the site area to the Orange and Green rapid transit lines. This important access will remain open during construction with no disruption in service during hours of MBTA operation.

Alternative Work Schedules

Alternative work schedules offer a way to reduce peak hour demands on the roadway system and on transit systems by shifting travel to non-peak hour periods or by reducing the total amount of travel per week. The major alternatives are:

1. Staggered Work Hours - are generally set up in such a way that groups of employees are assigned staggered starting times, typically at 15-minute intervals, spread over a one- or two-hour period;

2. Flexible Work Hours - allows employees to choose their own starting and finishing times, as long as they are present during a central part of the day (called core time); and

3. Compressed Work Weeks - involves shifting some workers from a standard five days per week, eight hours per day schedule to fewer days of longer hours (e.g., four days per week, ten hours per day).

The proponent has agreed to the following measures in this category:

1. Encouraging project tenants to implement one of the above concepts during the lease negotiation process;

2. Providing for access to the office building during "off-hours"; and

3. As an incentive for tenants, the proponent will make building services such as heat, air conditioning, etc., available during "off-hours" (up to a fixed number of hours per tenant) at no cost penalty if tenants shift employee start/end times.

Parking Supply Management

The development's all-private parking supply will be managed to encourage reduced peak hour traffic. Measures which would accomplish this include:

1. Setting aside spaces for short-term use by office and retail visitors;
2. Provision of up to two vanpool spaces for the project;
3. Preferential parking for carpool and vanpool vehicles (spaces would be assigned at market value to a high-occupancy vehicle in preference to a low-occupancy vehicle);
4. Construction of the project, due to the creation of the through-block connection entrance on New Congress Street, will require the loss of only two or three curb parking spaces on New Congress Street; and
5. One centralized parking garage in/out location on the through-block connector will minimize disruptions to traffic flow on the surrounding streets.

Delivery Vehicles

1. Restriction of all office delivery vehicles (with the exception of courier services) to off-peak hours, which include all times other than 7:00-10:00 AM and 3:00-6:00 PM;
2. Restriction of major office deliveries (which typically require the moving of furniture, etc.) to before 7:00 AM or after 6:00 PM;
3. Provision of an office loading dock attendant to encourage off-hours deliveries;
4. Prohibition of any office deliveries by tractor-trailer vehicles;
5. The proponent will encourage the hotel management to participate in this program, although it will be more difficult for a service industry to adhere to the same off-peak schedule; and

6. The office and hotel loading dock locations on Blackstone Street will not require the loss of any curb parking spaces due to the existing parking restrictions.

Taxis

1. Provision of a taxi waiting area on Union Street at the Hanover Street intersection for on-call service to the hotel entrance on Congress Street near Hanover Street. Space for three taxis should be sufficient. Metered curb parking spaces will be lost on Union Street.

2. Taxi drop-offs would occur either on the through-block connection or on New Congress Street.

Pedestrians

Good pedestrian linkages should be available between the project and the main activity areas surrounding the site. Important connections include the following:

- -- across New Congress Street to Government Center;
- -- across Sudbury Street to the Government Center Garage, Haymarket buses and North Station area;
- -- across Blackstone Street to the North End; and
- -- across Hanover Street toward Quincy Market.

Therefore, the following improvements are proposed to enhance existing pedestrian amenities in the project area:

1. The proponent will provide special paving at all existing crosswalks around the site.

2. All signalized intersections surrounding the site are equipped with pedestrian actuation devices (push buttons) and Walk/Don't Walk signal indications. These have been timed for existing traffic conditions in the area so as to allow concurrent pedestrian crossings and minimize undue delay to both vehicles

and pedestrians. It is proposed that all locations around the site be evaluated by the Boston Transportation Department for potential modifications to pedestrian signal timing and phasing.

3. The intersection of New Chardon Street/North Washington Street/Central Artery off-ramp is lacking pedestrian signals across the north leg of Washington Street. The Boston Transportation Department should install these devices as well as repaint crosswalks at this intersection.

4. Appropriate levels of street lighting will be installed by the proponent on all sidewalks surrounding the site.

5. The proponent will provide brick paving for the existing Congress Street median adjacent to the site.

6. Except for the portion of the site on Blackstone Street at the service driveways, the proponent will provide either a covered arcade or canopy for pedestrians. The arcaded/canopied area will be a public walkway with access to adjacent retail shops.

7. Most of Hanover Street will be repaved in granite by the proponent.

Pushcarts

1. The Haymarket pushcart operation is recognized by the proponent as an important downtown activity. The project has been designed so as to create no long-term impact to this operation. The same space as is presently used on Blackstone and Hanover Streets for this activity will continue to be available.

2. The proponent will endeavor to make some on-site space available for storage of pushcarts. This is currently being discussed with the pushcart association.

Access Goals

1. In the Impact Analysis Section, figures were given for several factors which, when combined, result in the project's relatively small estimated contribution to vehicle-trip and transit-trip loadings on the study area transportation systems. Three such factors are the most significant in terms of this end result. They are:

   -- percent transit use (share of person-trips to/from the project by all forms of public transportation),

   -- vehicle occupancy rate (average number of people in each vehicle driving to/from the project), and

   -- peak hour percentage (the portion of daily trips to/from the project which occur during the AM or PM peak hour)

   To lower vehicular travel even further, it would be desirable if the first two factors were higher than assumed and the third factor lower than assumed. This serves as the basis for establishing a set of access goals for the project, as shown in Table 15. Part A of this table lists each of the three factors, or measures of effectiveness, along with the value estimated in the impact analysis, the Access Plan feature that will try to improve the factor and the goal set for each factor after implementaton of the Access Plan at full project buildout and occupancy. Part B of the table summarizes the AM and PM vehicle-trips and transit person-trips estimated for the original impact analysis factors and for the new factors which will be the goals. It should be noted that all figures in the table refer to office work trips, which constitute about 23 to 32 percent of the project's peak hour vehicle-trip generation and about 47 to 58 percent of its peak hour transit-trip generation. Hotel-related non-work trips constitute most of the project's total travel demand but are not as readily susceptible to demand reduction strategies. However, the proponent has committed to work with the manager ultimately chosen for the hotel portion of the project to attempt to reduce auto travel. Discussions will be held, as previously noted, on providing courtesy airport limousine/van services and working with the MBTA on marketing increased use of public transportation services. Specific access goals for such measures cannot be identified.

TABLE 15
ACCESS GOALS FOR OFFICE WORK TRIPS

		Analysis Estimate	Mitigation Action	Goal
A. TRIP GENERATING FACTORS				
Percent by Transit		54%	Transit incentives	65%
Vehicle Occupancy Rate		1.5	Ridesharing	1.7
Peak Hour Percentage		55%	Alternative work hours	50%
B. RESULTING PEAK HOUR TRIPS				
Vehicle Trips:	AM	70		39
	PM	70		39
Transit Trips:	AM	157		172
	PM	157		172

2. As a follow-up to the setting of goals, the proponent will endeavor to provide information to the City which can be used to assess actual performance.

3. The proponent also commits to work with the City on a continuing basis to reduce vehicular travel to the site.

Construction Management

An important component of the Access Plan is an effective series of measures designed to minimize traffic flow and safety impacts during the construction phase.

Indicated below are several measures which will be incorporated into the construction management plan for the project. Additional measures may be identified when discussions are held with the contractor selected for the work. The preliminary listing is as follows:

1. Secure fencing, staging and bracing around the entire block, including sidewalks, to protect pedestrian traffic and pushcart operations near the construction site. Access will be maintained to the MBTA subway portal on the site.

2. The project's through-block connection will be provided as soon as feasible during the initial stages of the construction process to serve as a staging area for construction materials (within weight limitations) and as access to other portions of the site. This will minimize disruption to vehicle and pedestrian traffic on surrounding streets and will permit the pushcart operation to continue during construction.

3. No blockage of any existing travel lanes on New Congress, Sudbury, Blackstone or Hanover Streets at any time.

4. Use of a narrow portion of New Congress, Blackstone and/or Hanover Streets (no more than the curb lane) as a materials pick-up area and possibly for placement of a mobile crane. Current activity on these streets precludes travel in the curb lane, minimizing the impact of such activity on through traffic flow.

5. Construction worker parking will not be permitted on any streets. After construction of the project garage, additional space could be available on the site.

6. Scheduling of worker shifts so as to minimze conflict with the typical commuting periods.

Operational Improvements

The project's size characteristics, excellent location with respect to public transportation services, and the proponent's proposed commitment to various demand reduction stragegies all will result in relatively small traffic impacts at the key locations analyzed.

Nevertheless, the proponent recognizes the desirability of improving traffic circulation within the study area so as to maximize efficiency of traffic flow to/from the project site. Therefore, the proponent has committed to work with the City and to support implementation of the following improvement program:

Traffic Operations

Several modifications in traffic operation and control have the potential to improve traffic flow and level of service. These include measures at individual locations to alleviate specific deficiencies at those intersections (under the build condition), specifically the two North Street intersections at Blackstone and New Congress Streets, as well as improvements of a more general nature which would apply to larger street segments or even the entire area. Table 16 summarizes the results, which are discussed below for the North Street intersections.

Intersection-Related Measures. Under 1989 Build conditions, the North Street/Blackstone Street intersection is expected to operate at LOS "F" with V/C ratios of 1.37 and 1.26 in the morning and evening peak hours, respectively. Much of this is due to illegal parking on Blackstone Street in the travel lane adjacent to the median. Intermittent peak hour parking by delivery trucks and vans effectively reduces Blackstone Street to one lane as it approaches North Street. Enforcement of no-parking regulations would improve these V/C ratios to 0.99 and 1.04 in the morning and evening, respectively, while changing the morning level of service to "E" from "F". The evening level of service would remain at "F".

Under 1989 Build conditions, the North Street/Congress Street intersection is expected to operate at LOS "F" in the evening peak hour. The Congress Street approach (southbound) to this intersection currently consists of two travel lanes and a parking lane for City vehicles. The intersection was analyzed to determine if the conversion of the parking lane on the southbound side of New Congress Street to a travel lane would improve operating conditions. In the morning peak hour, there would be a minor improvement in the V/C ratio, however in the evening peak hour, which would be operating at

TABLE 16
COMPARISON OF 1989 BUILD INTERSECTION CAPACITY ANALYSIS
BASE CONDITIONS VS. MITIGATION MEASURES

	Peak Hour	Base Conditions[1]		Peak Hour Parking Restrictions		After Depressed Artery[1]	
		V/C	LOS	V/C	LOS	V/C	LOS
North Street/	AM	1.37	F	0.99	E	0.49	A
Blackstone Street	PM	1.26	F	1.04	F	0.57	A
New Congress Street/	AM	0.83	D	0.81	D	0.83	D
North Street	PM	1.11	F	1.11	F	1.12	F

---

[1] 1989 Build scenario analyzed previously.

[2] With deletion of Blackstone Street and construction of a new three-lane replacement street.

LOS "F", the V/C ratio would remain unchanged because the critical movements would not be helped by the additional southbound lane.

As discussed earlier, the long-range plan to depress the Central Artery will eliminate Blackstone Street between Sudbury and Hanover Streets. However, a new three-lane local road will be constructed connecting Sudbury Street to North Street. With the site exiting onto this new local street, traffic approaching North Street will travel on three lanes instead of the two lanes (or one with illegal parking) currently provided. The introduction of this local road will improve traffic operations at Blackstone Street/North Street to LOS "A", with V/C ratios of 0.49 and 0.57 in the morning and evening peak hours, respectively. This significant change in level of service is mainly due to the proposed ramp configuration of the depressed Central Artery which would allow direct access to the tunnel without routing traffic through this intersection. Additionally, vehicles traveling to the North End would decrease through this intersection due to other opportunities to access this neighborhood. It should be noted that the project is fully compatible with the proposed design of this area for the Central Artery depression.

System-Related Measures. It has been demonstrated that one of the most effective means available for improving traffic flow on an areawide basis, including central business districts, involve improvements to the traffic signal system.[1/]

It is for this reason that a comprehensive analysis of the existing signal system in the Government Center area is recommended. The existing three-dial fixed-time interconnected system is scheduled to be upgraded to an advanced computer-based system using real-time detection of actual traffic conditions on selected links. The upgraded system can be analyzed for signal timing effectiveness using a computer model such as TRANSYT-7F, which is ideally suited for downtown grid networks. As stated in the previously cited reference, such improvements have

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[1/] Energy Impacts of Urban Transportation Improvements", prepared for the Institute of Transporation Engineers, August, 1980.

been shown to improve speed or travel time in the 8 to 12 percent range, even if the "before" condition involved interconnected pre-timed signals with multiple dials.

Such an analysis may show that a reallocation of green time at study area locations may be beneficial. It may also help in achieving resignalization at the Blackstone Street/North Street intersection, which currently operates in the flashing mode.

Institutional Adjustments

Police Enforcement and Control. With the implementation of the computerized traffic violation program and widespread use of the "Denver Boot" by the Boston Transportation Department, there is an increased awareness on the part of motorists that parking violations are not tolerated by the City nor can they be ignored by the driver. Nevertheless, there is still room for improvement. As demonstrated at the intersections most susceptible to peak hour traffic problems, vigorous enforcement can make available "extra capacity" that is already built into the roadway system, but which goes unused due to illegal parking.

It is proposed that a continuing concentrated effort be made in this regard to insure that more of this capacity is available for peak period use. Increased police visibility and presence in the area, particularly along the most congested portions of Blackstone and North Streets, would be beneficial. Tow-trucks should be readily available to remove violators or for use in emergencies such as breakdowns or accidents in these critical areas. The City's recent announcement with regard to establishment of a traffic control traffic force will be very beneficial in responding to this need.

Goods Delivery. Any consideration of actions to reduce vehicle use in congested areas should encompass all travel, including goods movement, since one significant factor that often contributes to street congestion is delivery/loading activity by commercial vehicles. However, restrictions on truck deliveries are particularly difficult to implement because of the large number of vehicle operators involved. The vast majority of trucks are single-vehicle operations or are from small fleets.

In addition, misdirected restrictions can result in either a decline of commercial activity or an increase in the cost of consumer goods.

Various options are available for restricting Citywide delivery traffic in peak hours, including time shifts, permits, vehicle size limitations, and promotion of fleet efficiency[1/].

Time shifts in delivery schedules may help reduce peak hour traffic conditions. One approach is to structure goods and services traffic to occur before or after the morning rush period. Because the morning rush period is slightly shorter than the afternoon period, the morning period generally has more uncongested time available. Many commercial vehicles already make early deliveries so that this restructuring of delivery times has some acceptance. Another approach is to encourage more night deliveries. In some cases, the installation of "night-drop" facilities (analogous to night mail-drops and bank deposits) can facilitate a shift to night deliveries.

Permits can be issued for commercial vehicles so that only commercial vehicles having a need to be in the congested area in the peak period have legal access to the area. Such permit systems may have to be augmented with truck routes and appropriate signing to divert non-permit commercial vehicles away from or around the congested area.

Vehicle-size restrictions can be imposed. Large trucks and commercial vehicles tend to aggravate traffic congestion during peak periods, but smaller vehicles (such as panel trucks and pickups) have operating characteristics and parking requirements similar to automobiles. Therefore, if the larger vehicles are excluded in specific areas during peak periods, traffic may flow more freely.

1/ Much of the discussion involving downtown truck deliveries is based on "Actions to Reduce Vehicle Use in Downtown Areas," John Crain et al., Transportation System Management, Transportation Research Board, Special Report 172, 1977.

Fleet-dispatching efficiency can be encouraged. Service vehicles for telephone, gas and electric, sewer, and water utilities are often found in groups of two or three at repair or construction sites. More efficient vehicle dispatching could be promoted with the utility companies. In general, fleet dispatchers should be encouraged to time-stagger deliveries and pickups or to use fewer trucks.

It is recommended that the City of Boston, through its Transportation Department, work with employers in the Downtown area to encourage implementation of these measures. Negotiations could be conducted with the pushcart operators in the Haymarket area to determine whether delivery times could be scheduled for non-peak hours and/or to arrange for alternate locations for deliveries, perhaps along Hanover Street, to eliminate the lane blockage now occurring on Blackstone Street.

IV. B Air Quality

INTRODUCTION

The objective of the Air Quality Analysis is to determine if the proposed development will interfere with the attainment or maintenance of Massachusetts and National Ambient Air Quality Standards (NAAQS) for carbon monoxide (CO). The NAAQS were established by the Federal Clean Air Act, and are designed to protect both public health and welfare. To demonstrate compliance, it is necessary to identify those areas of human activity (sensitive receptors) exposed to maximum air pollutant levels from motor vehicle emissions in the project area. Using air quality modeling techniques, CO levels are estimated at these sensitive receptors for all project alternatives in the present and future years. Comparison of projected pollutant levels to the NAAQS permits evaluation of whether motor vehicle emissions related to the proposed development will pose a threat to public health or welfare.

DESCRIPTION OF THE ENVIRONMENT

Pollutant Sources and Effects

The key source of project-related air pollution is emissions from motor vehicles in the area of the site. Of the various air pollutants emitted, carbon monoxide (CO) is used in this analysis as an indicator of roadway air pollution levels, since it is the most abundant and persistent pollutant emitted by motor vehicles. Also, since CO is a non-reactive substance, its concentration in the air can be easily predicted.

The adverse health effects of carbon monoxide are a result of its combination with blood hemoglobin to form carboxyhemoglobin (COHb). This compound interferes with the life-sustaining transfer to oxygen from the lungs to the body tissues and the return of carbon dioxide from the tissues to the lungs. The presence of relatively small amounts of CO results in significant interference with essential cardiovascular-respiratory functions. Brief exposure to high levels of CO can impair vision, physical coordination, and the perception of time.

National Ambient Air Quality Standards (NAAQS) for carbon monoxide have been set by the U.S. Environmental Protection Agency (EPA). Standards for the Commonwealth of Massachusetts are identical to the Federal standards.

The standards, intended to protect the public health, set a maximum concentration of 35 parts per million (ppm) for a 1-hour period and 9 ppm for an 8-hour period, each not to be exceeded more than once per year. The target date for attainment of national CO standards in Massachusetts is December 31, 1987.

Background Air Quality

In urban areas such as Boston, there is always present in the air a fairly constant and diffuse level of CO due to the numerous sources spread throughout the metropolitan region and beyond. Such sources include all stationary fuel combustion facilities, as well as motor vehicle emissions on roadways. This diffuse level of air pollution is called the background level.

Background air quality can be determined by monitoring and testing air samples; however, no state monitoring station exists near the site. Background levels of CO for 1986 in the study area have been estimated by the Massachusetts Department of Environmental Quality Engineering (DEQE)[1] to be 6.0 (1-hour average) and 3.6 ppm (8-hour average). It is necessary to estimate a value for the background CO level in this study since it is added to the impact of local sources (namely, roadway intersections in the study area) in determining whether air quality at a particular location complies with the NAAQS. Background levels of CO for 1989 were estimated to be 5.2 ppm (1-hour) and 3.1 ppm (8-hour), as discussed in Appendix B.

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[1] Personal communication, Ms. Christine Kirby Massachusetts Division of Air Quality Control, DEQE, Boston, MA, August 26, 1986.

Methodology for Estimating Air Quality

The technical approach used to predict ambient air quality was approved in advance by the Massachusetts DEQE.[2] The analysis calculated maximum 1-hour and 8-hour CO concentrations at sensitive receptors near 3 intersections in the project area for the following three cases:

Year	Development Alternative
1986	Existing Conditions
1989	No-Build
1989	Build

The intersections studied were:

- New Congress Street/Sudbury Street
- New Congress Street/North Street
- North Street/Blackstone Street/I-93 SB Offramp

These intersections were selected because the traffic analysis indicated their 1989 No-Build Level of Service will be "E", or the LOS will be "D" and project traffic adds 10% or more to intersection volumes. Since CO levels are highest near intersections where traffic congestion occurs, compliance with the NAAQS at these locations protects public health elsewhere in the community.

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[2] Ibid.

Two mathematical models were used to predict air quality concentrations and their effects. The first, MOBILE-3,[3] was used to calculate the emissions of CO at an intersection based on traffic flow. The second model, CALINE-3,[4] was used to predict concentrations of CO at sensitive human receptors near the intersection. A detailed description of the technical approach and assumptions is given in Appendix B. The receptor locations and intersection geometry are shown in Exhibits IV B-1 through IV B-3.

PROBABLE PROJECT IMPACTS

The air quality analysis predicted maximum 1-hour and 8-hour CO concentrations at 16 sensitive receptors. Details of the analysis are included in Appendix B. The cumulative results of the air quality analysis including impacts from intersection traffic and background carbon monoxide are presented in Tables IV B-1 through IV B-3. These results do not characterize typical air pollution levels in the project area. Rather, they represent the highest concentrations that could exist from the simultaneous occurrence of worst case meteorology and peak traffic. Levels above the NAAQS in Table IV B-1 are underlined.

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[3] EPA, User's Guide to MOBILE-3 (Mobile Source Emissions Model), EPA-460/3-84-002, Ann Arbor, MI, June 1984, including software corrections from EPA dated May, 1985

[4] California Department of Transporation, CALINE-3, A Versatile Dispersion Model for Predicting Air Pollutant Levels Near Highways and Arterial Streets, FHWA/CA/TL-79/23, Sacramento, CA, November, 1979.

Exhibit IV B-1

Air Quality Receptors at the Intersection of New Congress Street and Sudbury Street

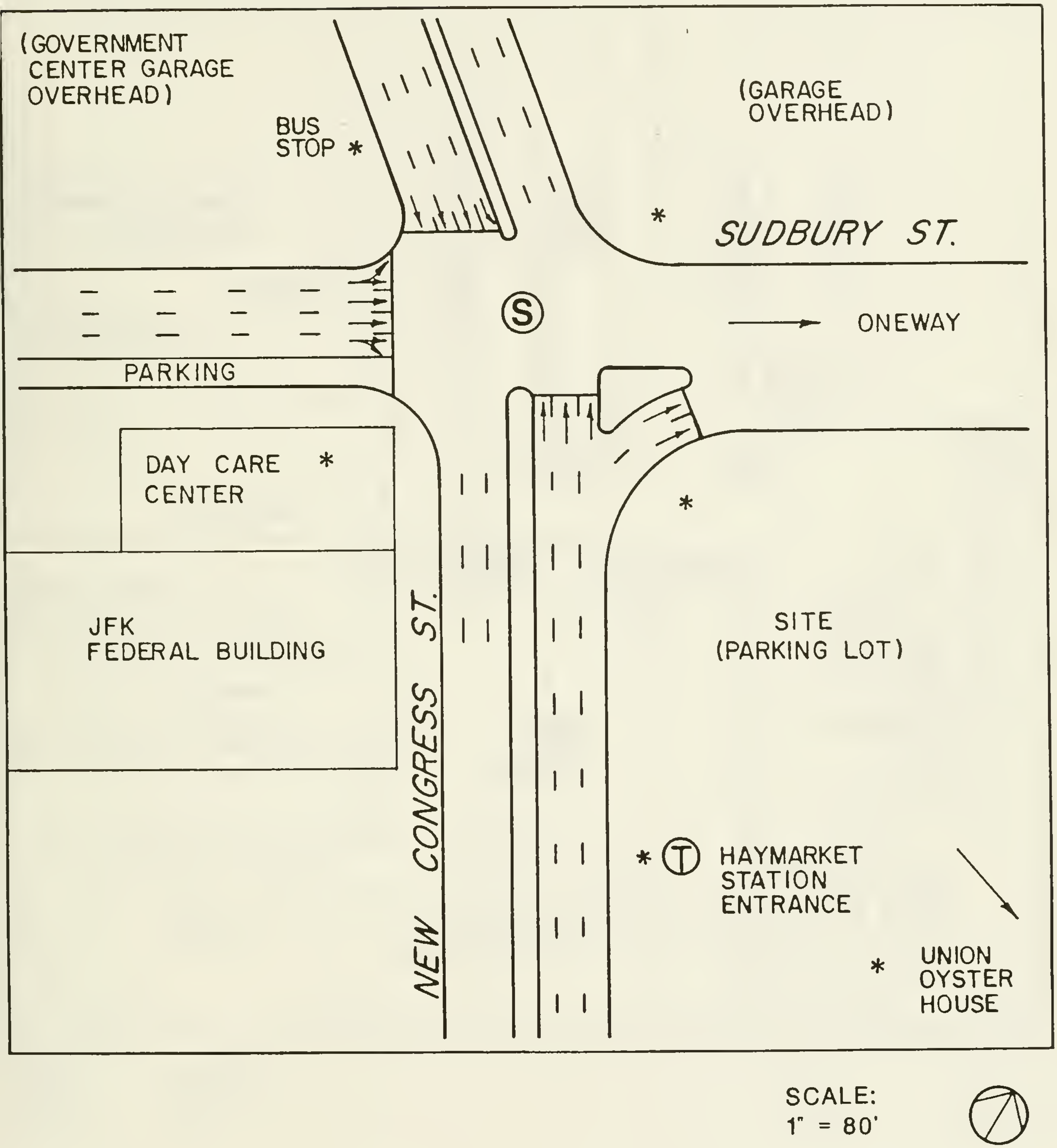


Exhibit IV B-2

Air Quality Receptors at the Intersection of New Congress Street and North Street

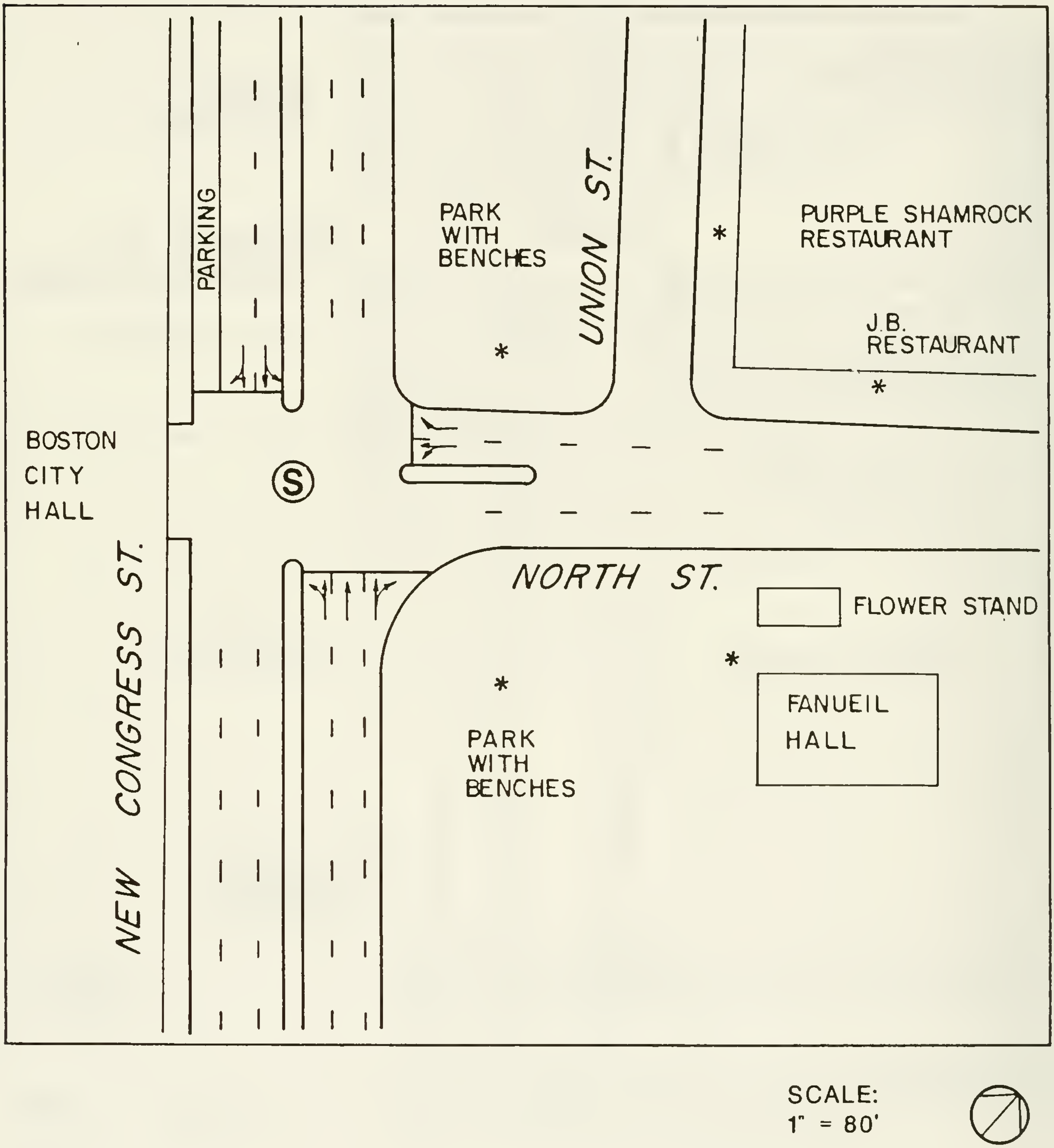
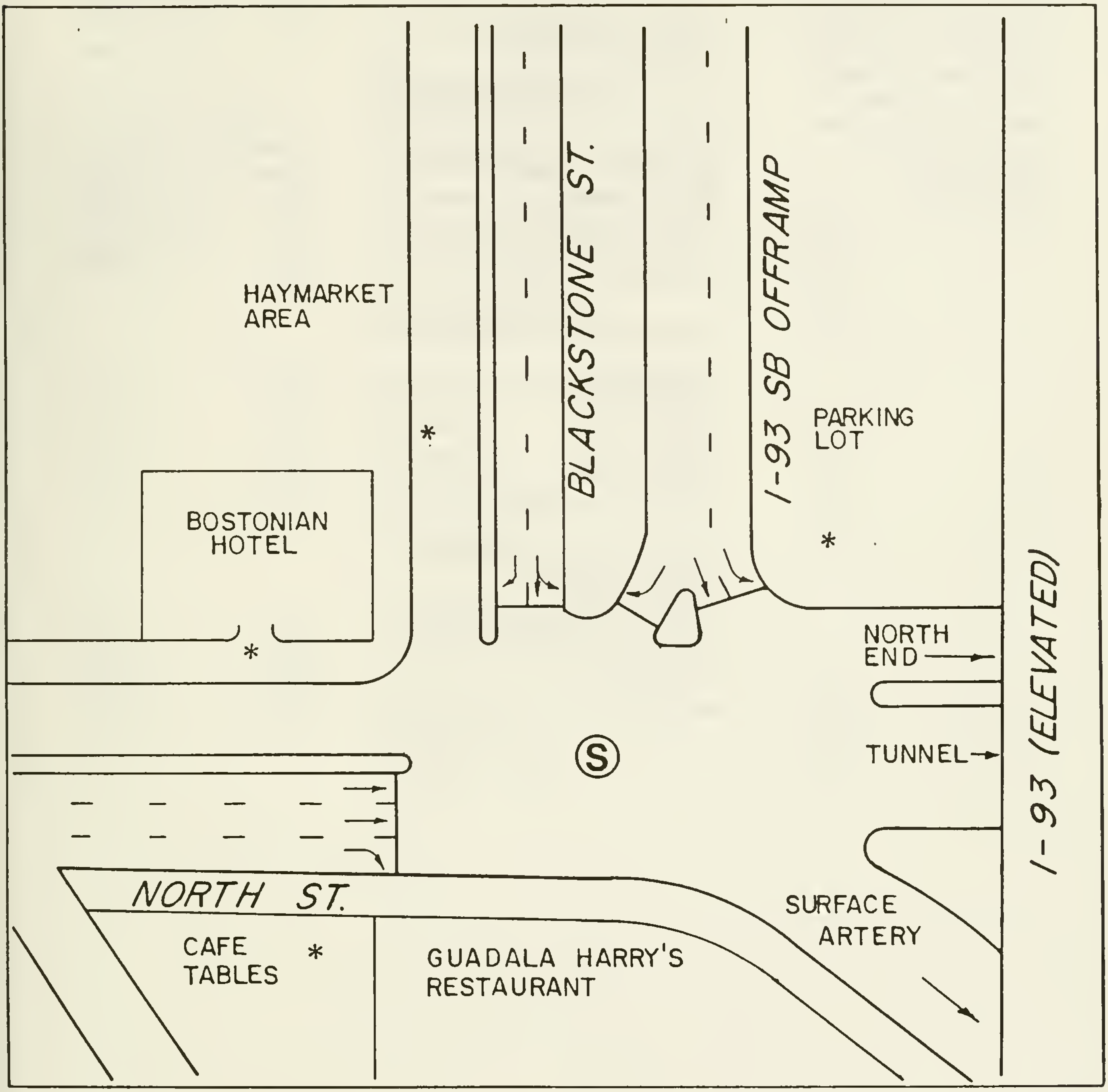


Exhibit IV B-3

Air Quality Receptors at the Intersection of North Street, Blackstone Street, and I-93 SB Offramp



SCALE:
1" = 80'

TABLE IV B-1

Existing Conditions

Predicted Maximum CO Concentrations Plus Background at Three Project Area Intersections (Worst Case Conditions)

Intersection and Receptor Location	CO Concentration (ppm)	
	1-Hour	8-Hour
National Ambient Air Quality Standard	35.0	9.0
Sudbury St./New Congress St.		
Bus Stop - Northwest Corner	22.4	10.6
Northeast Corner	20.0	9.3
Site - Southeast Corner	23.3	10.4
Haymarket MBTA Station	14.6	6.7
Day Care Center	21.9	10.5
Union Oyster House	10.7	5.4
North St./New Congress St.		
North Park	20.4	9.2
South Park	14.9	7.3
Fanueil Hall	9.7	4.9
Purple Shamrock Restaurant	10.7	5.2
JB Restaurant	9.8	5.0
Union Oyster House	8.6	4.4
Blackstone St./North St./ I-93 SB Offramp		
Bostonian Hotel	15.9	7.8
Cafe Tables	19.9	9.4
Parking Lot	20.8	9.7
Haymarket Area	21.3	9.7

TABLE IV B-2

1989 No-Build

Predicted Maximum CO Concentrations Plus Background at Three Project Area Intersections (Worst Case Conditions)

Intersection and Receptor Location	CO Concentration (ppm) 1-Hour	8-Hour
National Ambient Air Quality Standard	35.0	9.0
Sudbury St./New Congress St.		
Bus Stop - Northwest Corner	16.6	7.9
Northeast Corner	15.8	7.5
Site - Southeast Corner	18.0	8.4
Haymarket MBTA Station	12.4	5.8
Day Care Center	16.7	8.2
Union Oyster House	9.3	4.8
North St./New Congress St.		
North Park	15.9	7.3
South Park	11.8	6.0
Fanueil Hall	8.4	4.3
Purple Shamrock Restaurant	9.5	4.5
JB Restaurant	8.4	4.2
Union Oyster House	7.5	3.9
Blackstone St./North St./ I-93 SB Offramp		
Bostonian Hotel	12.0	6.0
Cafe Tables	15.2	7.2
Parking Lot	15.4	7.4
Haymarket Area	16.0	7.6

TABLE IV B-3

1989 Build

Predicted Maximum CO Concentrations Plus Background at Three Project Area Intersections (Worst Case Conditions)

Intersection and Receptor Location	CO Concentration (ppm) 1-Hour	CO Concentration (ppm) 8-Hour
National Ambient Air Quality Standard	35.0	9.0
Sudbury St./New Congress St.		
Bus Stop - Northwest Corner	16.8	8.0
Northeast Corner	17.1	7.6
Site - Southeast Corner	18.3	8.5
Haymarket MBTA Station	13.9	5.9
Day Care Center	16.8	8.2
Union Oyster House	9.6	4.9
North St./New Congress St.		
North Park	16.2	7.5
South Park	11.8	6.0
Fanueil Hall	8.4	4.3
Purple Shamrock Restaurant	9.6	4.7
JB Restaurant	8.6	4.3
Union Oyster House	7.6	3.9
Blackstone St./North St./ I-93 SB Offramp		
Bostonian Hotel	12.0	6.0
Cafe Tables	15.5	7.3
Parking Lot	15.5	7.5
Haymarket Area	16.1	7.7

Existing Conditions

The modeling results for the 1986 Existing Conditions show maximum 1-hour CO concentrations in the range from 8.6 to 23.3 ppm, all in compliance with the NAAQS of 35 ppm. Maximum 8-hour CO concentrations range from 4.4 ppm to 10.6 ppm. The 8-hour CO concentrations are predicted to be in violation of the NAAQS of 9 ppm at all three intersections. The highest levels occur at the intersection at Sudbury Street/New Congress Street. At this intersection, existing 8-hour CO levels are above 9 ppm at four receptors, covering three corners of the intersection and the day care center in front of the JFK Federal Building. These high levels of CO are due to the combined effects of high background levels in the downtown area, high levels of traffic volumes and congestion during peak periods, and the fact that sensitive receptors are very close to roadways in the area.

1989 No-Build

The modeling results for the 1989 No-Build case show a significant improvement in air quality at the three intersections due to the predicted decrease in the average motor vehicle emission rate. The average emission rate decreases with time as a larger portion of the vehicle population becomes equipped with full emission control equipment and a larger portion of the vehicle population is held to stricter emission limits through the Commonwealth's Inspection and Maintenance Program. The benefits of emission reduction outweigh the negative effects of increasing traffic volumes from 1986 to the 1989 No-Build case.

For the 1989 No-Build case, all 1-hour and 8-hour CO concentrations are in compliance with NAAQS. Maximum 1-hour values range from 7.5 to 18.0 ppm, while 8-hour values range from 3.9 to 8.4 ppm. CO levels at the receptors with predicted violations in the existing case will decrease about 20% by 1989, and these receptors will experience maximum 8-hour CO levels in the range of 7.3 to 8.4 ppm.

1989 Build

The modeling results for the 1989 Build case indicate a slight increase in the maximum CO concentrations compared to the 1989 No-Build condition. All 1-hour and 8-hour CO concentrations are in compliance with NAAQS. Maximum 1-hour values range from 7.6 to 18.3 ppm, while 8-hour levels range from 3.9 to 8.5 ppm.

The highest CO concentrations under the 1989 No-Build case occur at the receptor which sits on the southeast corner of the intersection of New Congress and Sudbury Streets and which is on the project site. At this receptor, the traffic from the Parcel 7 development increases peak 1-hour levels from 18.0 to 18.3 ppm and increases peak 8-hour levels from 8.4 to 8.5 ppm, i.e. the project increases maximum CO levels about 1% in 1989. The largest percentage increase in 8-hour CO levels occurs at the North Park receptor near the intersection of North Street/New Congress Street, where CO levels will increase 4% from 4.5 to 4.7 ppm. Overall, the development adds less than 4% to 8-hour CO concentrations.

Compliance by December 31, 1987

The target date for attainment of national CO standards in Massachusetts is December 31, 1987. This date is before any impacts from the Parcel 7 project would occur. To determine whether existing CO concentrations, projected to be in violation at three intersections, would attain the standards by this date, further analysis was done. Emission rates produced by MOBILE-3 represent conditions on January 1 of any year. Thus, MOBILE-3 was run for the year 1988 to obtain appropriate emission rates. Traffic volumes for the No-Build case were also extrapolated to 1988, a conservative assumption.

The predicted CO concentrations are shown in Table IV B-4. These results indicate all CO concentrations will be in attainment by December 31, 1987 except for the maximum 8-hour CO level of 9.3 ppm at the receptor which sits on the southeast corner of the intersection of New Congress and Sudbury Streets. In order to bring this receptor into compliance a further analysis was done whereby the signal timing at this intersection was rebalanced to better serve the critical moves. Specifically, the timing shown in Table 7 of Appendix B was adjusted by shifting 3 seconds of green time from Phase B to Phase A.

The air quality modeling results with this mitigation measure are given in Table IV B-5 and show CO levels at all receptors either decrease or stay the same, and most importantly the concentration value of 9.3 ppm at the southeast corner receptor is reduced to 9.0 ppm, which is in compliance with the NAAQS. It is recommended, independent of the Parcel 7 project, that the City of Boston retime the light at the corner of New Congress and Sudbury Streets to reduce existing CO concentrations and to help bring the intersection into compliance by December 31, 1987.

Construction Impacts

The construction of the development will generate some short-term impacts to the surrounding community from fugitive dust and noise. As required by DEQE Air Pollution Control Regulation 7.09, dust will be controlled during construction as needed by water and calcium chloride. Following construction, the use of permanent landscaping, clean gravel, and asphalt pavement will cover all exposed soil and adequately control fugitive dust emissions.

As required by Regulation 7.10, measures will be taken to minimize noise impacts on the surrounding community; these included construction scheduling only during the daytime hours, and the use of equipment with noise mufflers in good condition.

MITIGATION MEASURES

Intersection Analysis

The Parcel 7 will cause relatively small increases in maximum 1-hour and 8-hour CO concentrations in 1989 at sensitive receptors near roadway intersections. Total CO concentrations under the project Build alternatives remain in compliance with the NAAQS. Since CO levels are highest near intersections where traffic congestion occurs, compliance with the NAAQS at these locations protects public health elsewhere in the community.

TABLE IV B-4

December 31, 1987
No-Build

Predicted Maximum CO Concentrations Plus Background at Three Project Area Intersections (Wost Case Conditions)

Intersection and Receptor Location	CO Concentration (ppm)	
	1-Hour	8-Hour
National Ambient Air Quality Standard	35.0	9.0
Sudbury St./New Congress St.		
Bus Stop - Northwest Corner	18.3	8.7
Northeast Corner	17.5	8.0
Site - Southeast Corner	19.9	9.3
Haymarket MBTA Station	13.4	6.1
Day Care Center	18.2	8.8
Union Oyster House	9.8	5.1
North St./New Congress St.		
North Park	17.7	7.9
South Park	23.1	6.5
Fanueil Hall	18.9	4.6
Purple Shamrock Restaurant	20.4	4.7
JB Restaurant	19.1	4.4
Union Oyster House	18.1	4.2
Blackstone St./North St./ I-93 SB Offramp		
Bostonian Hotel	13.3	6.6
Cafe Tables	17.0	7.9
Parking Lot	17.1	8.2
Haymarket Area	17.8	8.5

TABLE IV B-5

December 31, 1987
No-Build

Predicted Maximum CO Concentrations Plus Background at the Intersection of New Congress and Sudbury Streets with Traffic Signal Retiming

Receptor Location	8-Hour CO Concentration (ppm)
National Ambient Air Quality Standard	9.0
Bus Stop - Northwest Corner	8.6
Northeast Corner	8.0
Site - Southeast Corner	9.0
Haymarket MBTA Station	6.0
Day Care Center	8.8
Union Oyster House	4.1

Although project contributions to CO levels are small and no violations of health standards in 1989 are predicted, there are mitigation measures discussed in the Transportation section that could reduce even these limited air quality impacts. First, implementation of motor vehicle demand reduction strategies will reduce traffic volumes on local streets and hence CO levels. Second, construction of the depressed Central Artery will involve a new three-lane street to replace Blackstone Street north of North Street and a rerouting of Central Artery to Callahan Tunnel trips away from the existing intersection. These operational changes will greatly improve the level of service for the Blackstone Street/North Street intersection, reduce congestion, and the CO concentrations in the Haymarket Area.

There is a predicted violation of NAAQS at one receptor at the intersection of New Congress and Sudbury Streets for the No-Build case on December 31, 1987. This violation is related to existing conditions and has no bearing on project related impacts in the year 1989 (by which time compliance would be attained). As a mitigation measure for this existing condition, it is recommended that the City of Boston retime the light at the corner of New Congress and Sudbury Streets to bring the intersection into compliance. The suggested retiming is to move 3 seconds of green time away from the Merrimac Street southbound left turn (phase B) to the New Congress Street and Merrimac Street through movements (phase A).

IV. C Transit Facilities

EXISTING CONDITIONS

The Haymarket Station of the Massachusetts Bay Transportation Authority (MBTA) is a subsurface transit interchange located in an easement underlying approximately one-third of the Parcel 7 site (see Exhibit IVC-1). The station is one of the MBTA's principal downtown transit nodes, linking the Green Line light rail system with the Orange Line heavy rail system. In addition, an MBTA bus interchange is located at-grade across from Parcel 7, linking the Haymarket Station rail facilities with various area bus routes.

Two street-level entrances serve the subsurface transit station, one below the Government Center Garage, and one at Parcel 7 approximately 25 feet from the New Congress Street curb. The Parcel 7 station entrance is located within a small asphalt-paved area which also includes a sheltered bus stop.

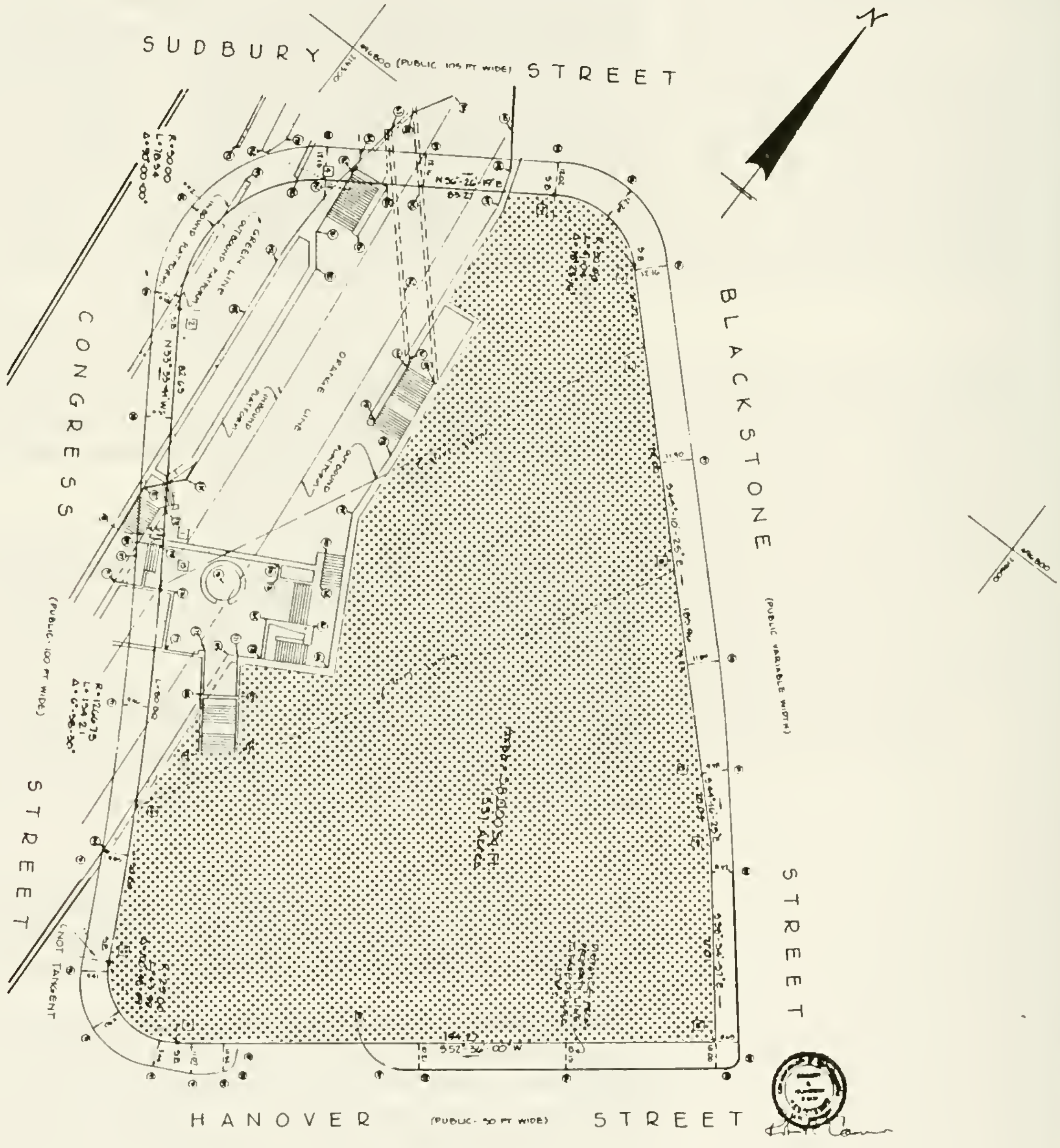
The Parcel 7 station entrance leads via a stairway to the station's mezzanine area, which includes collectors booths, token-operated gates, and a circular skylight aproximately 15 feet in diameter. The skylight extrudes at the surface of Parcel 7 in the form of a tubular structure with a slanted circular pane. The mezzanine, as well as other station areas, is faced in brick. The large number of support columns located throughout the station are either faced in brick or sheathed in polished metal casings.

Stairways lead from the mezzanine down to the Orange Line platform. The inbound and outbound passenger waiting areas of the Orange Line are separated by a track-bed channel in which heavy rail vehicles travel.

A passageway from the Orange Line platform leads further down and then up again to the Green Line platform. The inbound and outbound waiting areas of the Green Line are adjacent to each other, separated by a brick-faced partition running along the length of the platform. Light rail vehicles stop on either side of this passenger waiting area.

Exhibit IV C-1

Subway Easement


SUDBURY STREET (PUBLIC 105 FT WIDE)
N
CONGRESS STREET (PUBLIC 100 FT WIDE)
BLACKSTONE STREET (PUBLIC VARIABLE WIDTH)
HANOVER STREET (PUBLIC 50 FT WIDE)
GREEN LINE
ORANGE LINE
INBOUND PLATFORM
OUTBOUND PLATFORM
.55 Acre
NOT TANGENT

REFERENCES

- PROPERTY LINE MAP PARCEL 1 B R A GOVERNMENT CENTER PROJECT DATED NOV 13, 1967 REVISED JAN 31, 1977
- MASTER PARCEL PLAN B R A GOVERNMENT CENTER PROJECT DATED APRIL 1962
- CITY OF BOSTON DEPT OF PUBLIC WORKS ENGINEERING DIVISION FIELD NOTES:
  BK. 971 PAGE 41
  BK. 1034 PAGE 17
  BK. 1078 PAGE 115

NOTES

- ALL SUBWAY LOCATIONS ARE AT FACE OF BRICK, EXCEPT GREEN LINE WALL LOCATIONS NOs. 151, 152 & 153 WHICH ARE AT VERTICAL FACE OF CONCRETE WALL.
- [1] = PROPERTY CORNER
- ● = CURBING LOCATION
- Ⓢ SUBWAY LOCATION
- SB = STONE BOUND
- COORDINATES ARE IN MASSACHUSETTS COORDINATE SYSTEM BASED UPON THOSE INDICATED ON B R A MASTER PARCEL PLAN REFERENCED
- UNDERGROUND STRUCTURES SHOWN ARE BASED UPON FIELD LOCATIONS AND MBTA PLANS. IT IS NOT WARRANTED THAT THE SIZE AND LOCATIONS OF SUBWAY WALLS ARE EXACTLY AS SHOWN NOR THAT ALL UNDERGROUND STRUCTURES ARE SHOWN

PLAN OF LAND
WITH
SUBWAY AND CURBING LOCATIONS
BOSTON, MASS.
SCALE OCT 22, 1985
R.E. CAMERON & ASSOCIATES, INC
NORWOOD, MASS.

PROBABLE PROJECT IMPACTS

Office Structure Foundation

The planned office building will be located partially above the Orange Line Station and Green Line Tunnels.

The foundations for the office building are anticipated to be mat foundation bearing on clay, at approximately 10' below the invert elevations of the Orange Line Station. The edge of the mat foundation shall be approximately 5' away from the bottom of the tunnel structure. The earth support system and the basement walls shall be designed for the superimposed surcharge load from the tunnel. The foundation of the existing tunnels also bear on clay. The roof structure of the existing Orange Line station has a superimposed load of approximately 10' of earth and a live load capacity of 250 psf.

Preliminary analysis of the existing tunnel structure indicates that the portion of the office building, which extends over the MBTA Structure, could be supported on the walls of the tunnel structure when all the superimposed load due to earth on the roof of the tunnel is removed. It is proposed that a series of transfer beams at the ground floor level spanning between the tunnel walls be constructed to support the columns from the office building structure.

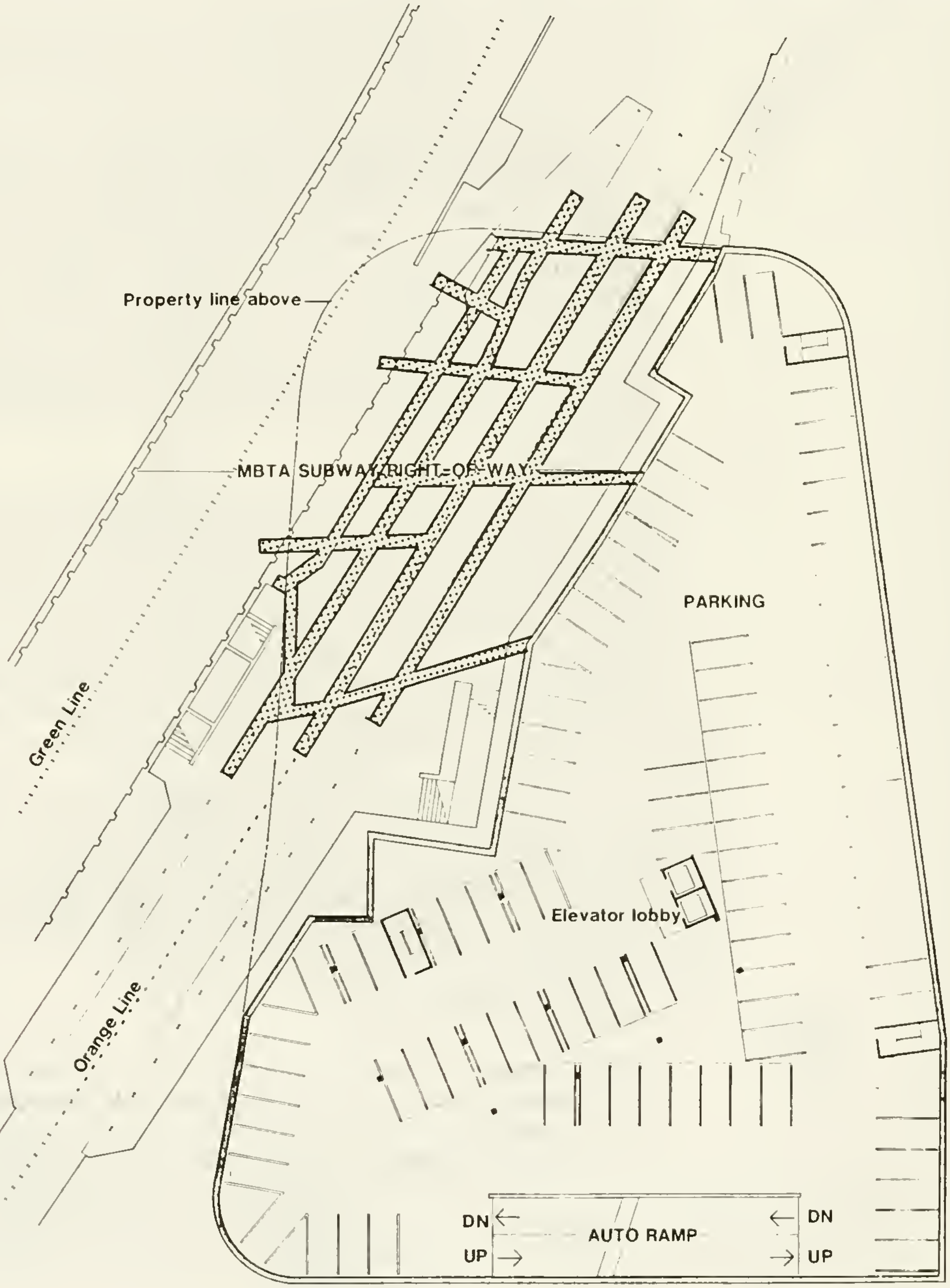
The proposed scheme will be submitted to the MBTA authorities for their review and approval. The construction of the transfer beam system will not interfere with the operation of the subway system and shall provide an opportunity to repair the damaged waterproofing on the roof of the station.

New Station Entrance

Also planned as part of the Parcel 7 Development is a new subway entrance to the Haymarket subway mezzanine area, shifting the existing entry stair located on-site near New Congress Street. The new subway entrance will be tied into the new building design through incorporation into the New Congress Street pedestrian arcade. In addition to climatological protection, special attention will be given to new paving, identifying

Exhibit IV C-2

Subway Structural Conditions



signage and night lighting. The new stair will lead directly to two existing mezzanine stairs servicing the station's platforms. At least one of these existing stairs will remain operational throughout the construction process, ensuring passenger access to the platform areas at all times.

Mitigation Measures

As a result of initial contact with MBTA staff, the following list of mitigation measures has been established to ensure that the project has no negative impact on transit facilities located below it. this contact will be continued as design development proceeds.

- Ongoing contact with the MBTA Chief Engineer, Director of Real Estate Management, and other pertinent MBTA departments will be maintained to provide the authority with up-to-date project information, and to establish the Authority's requirements concerning project design and construction.

- No interruption of service or access to MBTA facilities will result from project construction or operation. This includes both the Green Line platform, and the Orange Line mezzanine, which will remain fully operational during construction of the new entrance.

- MBTA flagging personnel and crew will be provided during construction at the developer's expense in order to properly coordinate construction activity with MBTA operations.

- Construction activity will avoid all operating track, signals, communication lines, power lines and cables. MBTA facilities will be left in a clean, safe condition after each daily construction period.

IV. D Sewerage

INTRODUCTION

The purpose of this chapter is to describe the existing sewer infrastructure, to predict changes and impacts occurring as a result of the proposed project, and to propose mitigation measures to minimize adverse effects. This impact assessment has been conducted in consultation with the Boston Water and Sewer commission (BWSC).

EXISTING CONDITIONS

The operations of the sewer system serving the project area is affected by certain conditions, including the presence of combined rather than separate sewers for storm and sanitary wastewater, infiltration/inflow problems in area pipes, the effect of tidal inflow into area sewerage, and the planhed reconstruction of the system's East Side Interceptor. These conditions pertain directly to the adequacy of the system to convey anticipated project sewage flows, and to the effect of the project on the area's sewerage system.

Combined Sewers

① The project area is served by combined sewers which were constructed between 1860 and 1900. Combined sewers are common in older cities, and are designed to collect sanitary wastewater, as well as stormwater runoff from streets and rooftops. In combined sewer systems, overflow structures are provided to release mixed stormwater and sanitary wastewater exceeding the capacity of downstream interceptors during storm events. This release is discharged to nearby water bodies (i.e. the Boston Inner Harbor) and is the cause of pollution during heavy rain storms. Dry weather (non-storm) discharges also occur at certain combined sewer outlets. In general, dry weather discharges are caused by insufficient system capacity, tidal waters entering the system, infiltration/inflow problems, and pumping failures at the Deer Island Sewage Treatment Plant. The Boston Water and Sewage Commission and Massachusetts Water Resource Authority are currently implementing plans to separate combined sewers and eliminate combined sewer overflows (CSOs) within the downtown area.

Infiltration/Inflow

Infiltration/inflow are two different conditions which are usually investigated and discussed together. Infiltration is water that seeps into a sewer system from the ground through cracked pipes, manhole walls, pipe joints, and poorly-made or deteriorated connections. All sewers are subject to infiltration to some extent.

Inflow is rainfall which enters the sanitary sewers through roof leaders, yard and area drains, manhole covers, storm drain connections, and catchbasins. Because combined sewers, such as those which serve the Parcel 7 project, are designed to accept inflow, only infiltration is a concern for the sewerage system in the project area.

②

Although infiltration does occur in the project area due primarily to the age of the pipes, the Boston Water and Sewer Commission (BWSC) did not recommend infiltration correction in its 1982 Sewer System Evaluation Study. It is anticipated that many of the infiltration problems in the project area will be corrected when the new East Side Interceptor is completed.

Tidal Conditions

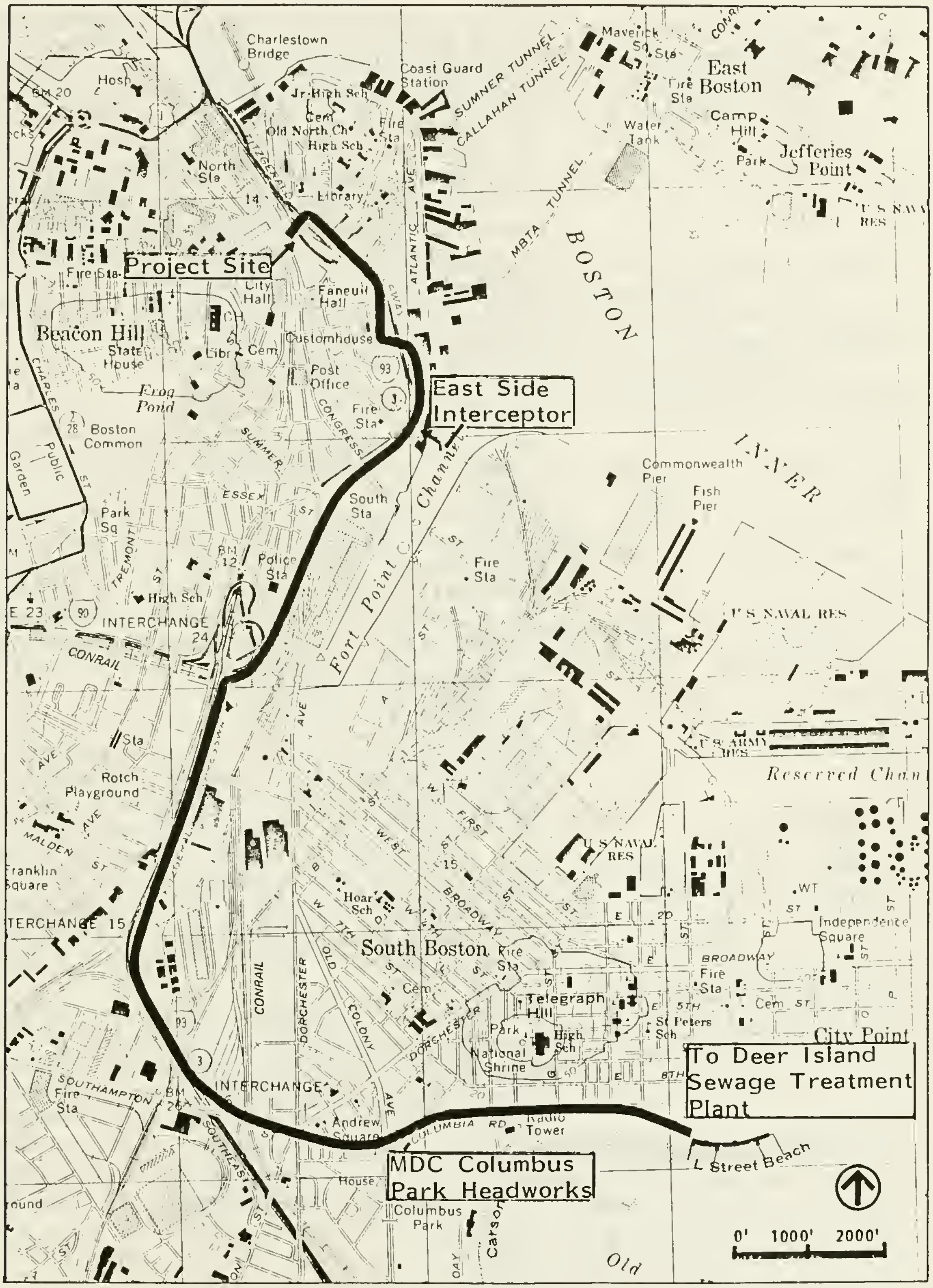
Another important cause of sewer overflows into Boston Harbor involves the effect of tidal conditions. Tide gates installed on overflow pipes to keep incoming tide waters from entering the sewer system often malfunction, allowing a significant volume of seawater to enter the system during high tide. This seawater limits the hydraulic capacity of the sewer system, prevents conveyance of wastewater, and results in a surcharged condition. As the tide recedes, the tide gates open to relieve the surcharged system, discharging dry weather flow to the Harbor in the process.

East Side Interceptor

As shown on the accompanying exhibit, the East Side Interceptor (ESI) conveys combined sewer flows from the Downtown Boston area to the Boston Main Interceptor at

Exhibit IV D-1

Sewer Collection System



Massachusetts Avenue and Albany Street. Various collector sewers convey sanitary sewage and stormwater to the ESI at points along their routes. The East Side Interceptor begins at Hanover Street near Constitution Wharf and extends southerly along Commercial Street and Atlantic Avenue to Dewey Square, then southerly beneath the South Station railroad yards to Albany Street where it eventually connects to the Boston Main Interceptor at the intersection with Massachusetts Avenue, which in turn leads to the MDC Columbus Park Headworks. Sewage is pumped from the Headworks to the Deer Island Treatment Plant via the 138-inch diameter Boston Main Drainage Tunnel. At Deer Island, sewage receives primary treatment and chlorination prior to discharge into the Boston Harbor.

Significant hydraulic problems exist in the East Side Interceptor, due to insufficient capacity as well as to a new section of interceptor at High Street, which was constructed by the Boston Redevelopment Authority in anticipation of reconstruction of the entire interceptor by the BWSC. The new section is approximately two feet below the level of the existing line, creating a constant surcharge in the interceptor, and resulting in occasional dry weather overflows in the waterfront area. Proposed plans to replace the remainder of the interceptor will eliminate this hydraulic restriction.

Replacement of the East Side Interceptor is now underway as part of an ongoing $60 million BWSC design and construction program designed to improve the interceptor's operations. Construction of the New East Side Interceptor began in 1982 and is scheduled for completion in 1989, assuming no conflicts with the depression of the Central Artery. The new interceptor will extend from Widett Circle in South Boston to Rowes Wharf at Atlantic Avenue in downtown Boston.

The BWSC anticipates that once the East Side Interceptor reconstruction is completed, the Commission will be able to remove present requirements restricting flow into the system during high tide periods. The Commission also projects that dry weather overflows from the combined system to the Boston Harbor will be eliminated, and that overflows during storm periods will be significantly reduced. This program to increase the capacity of the East Side Interceptor is being complemented by BWSC efforts to separate storm and sanitory sewerage in the downtown area, thus reducing the volume of flow to be carried to treatment facilities.

PROBABLE PROJECT IMPACTS

Sewerage Generation

Sewage to be generated by the planned project has been projected at 73,910 gallons per day (gpd). This estimate has been calculated based on standard sewage flow rates as presented in Title V of the Massachusetts Department of Environmental Quality Engineering Sanaitary Code. Sewage flow was calculated as follows:

Office Section:
(120,000 sf) x (75 gpd/1,000 sf) = 9,000 gpd

Hotel Section:
(381 rooms) x (110 gpd/room) = 41,910 gpd

Retail Section:
(10,000 sf) x (5 gpd/100 sf) = 500 gpd

Restaurant Section:
Restaurant/Lounge
(450 seats) x (35 gpd/seat) = 15,750 gpd

Kitchen Facilities
(450 seats) x (15 gpd/seat) = 6,750 gpd

TOTAL = 73,910 gpd

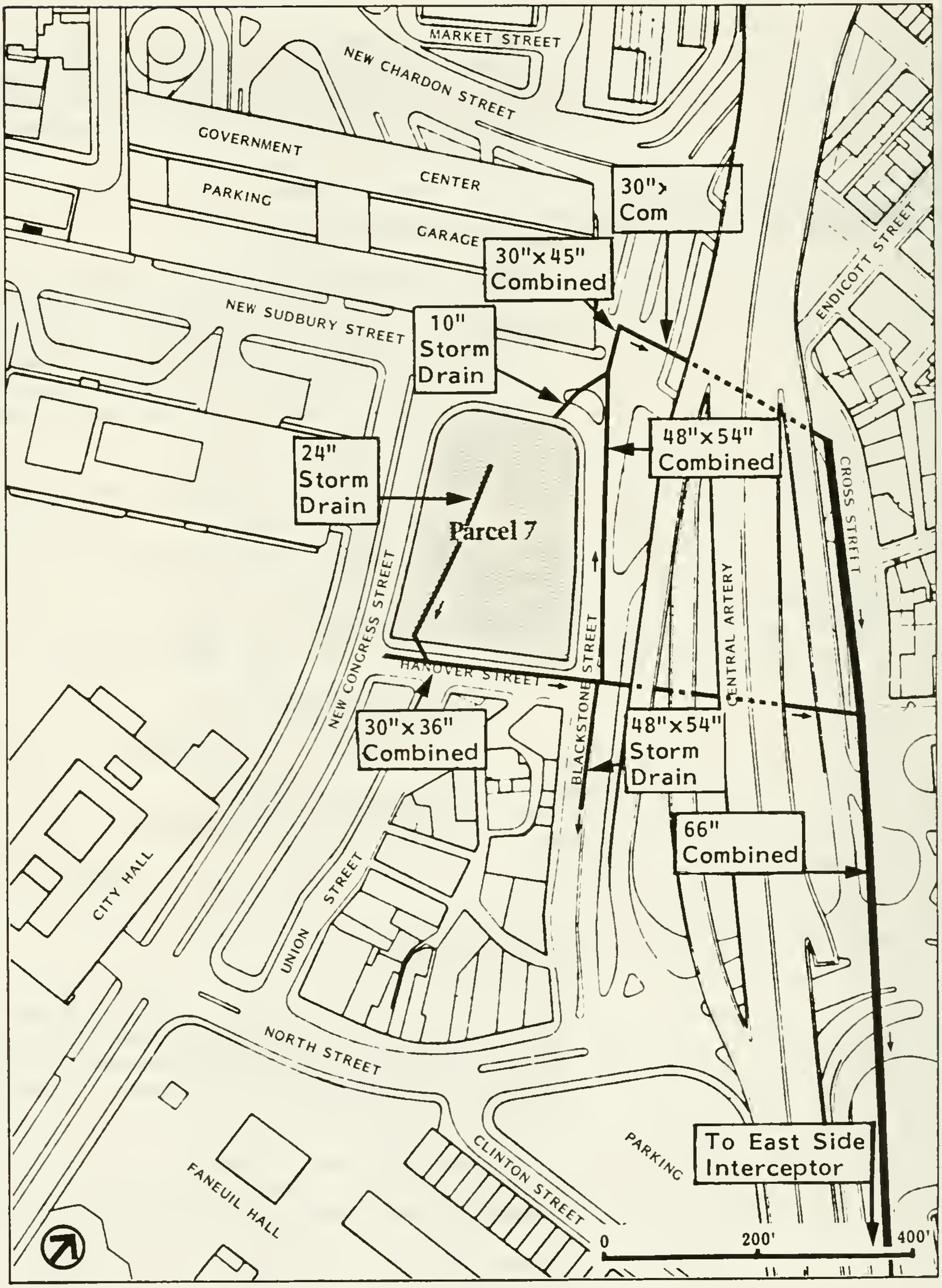
Storm Drainage

The project site is almost entirely paved. Storm water runs off the site to combined sewers in the project area. Implementation of the proposed project will not significantly alter storm drainage as compared to existing conditions.

A separate 48" x 54" storm drain in Blackstone Street currently runs from the intersection of Hanover Street towards North Street. All site runoff will be carried in a separate storm drain in Hanover Street from Union Street to this existing line in Blackstone Street. The new drain will be of adequate size to serve the project site, and will allow for the future separation of Union Street by the Boston Water and Sewer Commission.

Exhibit IV D-2

Site Area Sewerage



← = Direction of Flow

Source: Boston Water and Sewer Commission

Sewerage Adequacy

As shown in the accompanying exhibit, the project's sanitary sewers and storm drains will connect into a 30"x36" combined sewer line which runs along Hanover Street. Sewage in the Hanover Street line runs in an easterly direction until it connects with a 66" combined sewer at Cross Street. The Cross Street sewer discharges directly into the East Side Interceptor. No sanitary sewer connections will be made to the 48"x54" combined sewer line in Blackstone Street, as has been requested by the Boston Water and Sewer Commission.

The existing sewage system for the project was reviewed by the BWSC who saw no significant capacity problems. However, a final analysis of the capacity of area sewers to properly serve the project will occur upon the proponent's application for a Massachusetts Sewer System Connection Permit, required of all projects generating more than 2,000 gpd. The purpose of the permit, which is reviewed jointly by the Boston Water and Sewer Commission and the Massachusetts Department of Environmental Quality Engineering, Division of Water Pollution Control, is to monitor types of discharge, prevent inadequacies in project design, and avoid overburdening of the public sewer system capacity. Submission of the Sewer Connection Permit application will include details of the project's building sewers and drains, including the size, type, material, invert and elevation of all drainage lines.

Storage Tank System

In order to avoid contributing to surcharged conditions in the East Side Interceptor during high-tide periods, the planned project will utilize a storage system to hold sewage on-site until low-tide periods, during which sewage will be discharged into the public sewer system by an automated pump system. The sewage holding tanks will be able to accommodate the projected average daily flow of 73,910 gpd, and will be designed to comply with BWSC requirements which stipulate that new connections for facilities within the downtown area producing more than 10,000 gallons per day incorporate sewage holding tanks into project design.

The planned system will utilize two 30,000-50,000 gallon storage tanks of reinforced concrete construction. Waterproofing will be applied on all surfaces, and other appropriate measures will be utilized in order to ensure a watertight, leak-proof system. The tanks will be able to accommodate a maximum 6-hour flow between low tide periods, and will be located one level below grade.

Lift pumps will be utilized to discharge sewer wastes into the public sewer system. Pumping will be designed to occur two hours before until two hours after low tide, for a total of four hours of pumping for each sequence. The system will be equipped with an emergency power connection through the project's emergency generator.

A tide clock controller will be programmed to operate pumps during designated low-tide periods. The tide schedule will be programmed into the controller based on U.S. Coast Guard data for Boston Harbor tides.

Although this EIR was not required to analyze water supply issues, preliminary consultation with the Boston Water and Sewer Commission regarding water issues has been undertaken. According to BWSC, there is adequate water supply in this area to serve the project. Connection to the water system will entail a minimum of two feeds for both domestic water and fire service. These feeds will be from water supply lines in either Hanover Street or Congress Street. The project Proponent will replace approximately 200 linear feet of an existing 6 inch water line with a new 12 inch line in Hanover Street and will abandon an existing 12 inch line within the project site.

MITIGATION MEASURES

In addition to the sewage storage-tank system, a variety of other mitigation techniques will be utilized in order to minimize adverse effects associated with sewage generation. For instance, although the project will be served by combined sewers, separate sanitary and storm drainage lines will be provided within all building plumbing in the event that separate sewers are constructed by the Boston Water and Sewer Commission in the future. Water savings devices will be utilized to help reduce wastewater flows. Grease traps that meet Title V requirements will be provided at all restaurant kitchen facilities, and oil/gasoline traps will be provided at the discharge point of the garage drainage system. These facilities will be maintained by project personnel and will meet the requirements specified by BWSC regulations. In addition, all wastewater facilities serving the project will be constructed in conformance with BWSC standards and specifications.

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IV. E

Visual Quality & Urban Design

INTRODUCTION

This section describes the effects of Parcel 7 Development on the urban design and visual qualities of the surrounding built environment. The following pages discuss existing urban design conditions in the project area, key visual quality issues, representative views of proposed development, and other related issues.

URBAN DESIGN CONTEXT

Existing Conditions

Parcel 7 is situated in a highly visible downtown location in the immediate vicinity of development representing sharply contrasting architectural styles and urban conditions. Low-rise eighteenth and nineteenth century buildings exist in the immediately adjacent Blackstone Block and the nearby North End neighborhood. Directly across New Congress Street from the site lies the massive architectural scale of Government Center structures built in the 1960s.

A prominent element of the area's visual environment is the elevated Central Artery which lies just to the east of the site, and which carries thousands of vehicles each day. In contrast, heavy pedestrian activity occurs adjacent to the site along Hanover and New Congress Street, generated by area land uses such as MBTA transit facilities, the Haymarket, Quincy Market, and nearby business and government offices.

Planning/Design Issues

A variety of concerns regarding urban design issues which relate to development of Parcel 7 have been expressed by the Boston Redevelopment Authority (BRA), the Boston Preservation Alliance, the Massachusetts Historical Commission and other interested parties. Among the principal concerns expressed is the need for the project to maintain the existing view corridor from Government Center Plaza to the Old North Church, while obstructing views of the unattractive Central Artery.

Also of concern is the need for the project's massing to be compatible with both the architecture of Government Center and, more importantly, the historic structures of the adjacent Blackstone Block.

Additional concerns include the need to reinforce and strengthen the area's pedestrian orientation, and to minimize the visual and aesthetic impacts of the project's 375 vehicle parking facility.

PROBABLE PROJECT IMPACTS

Introduction

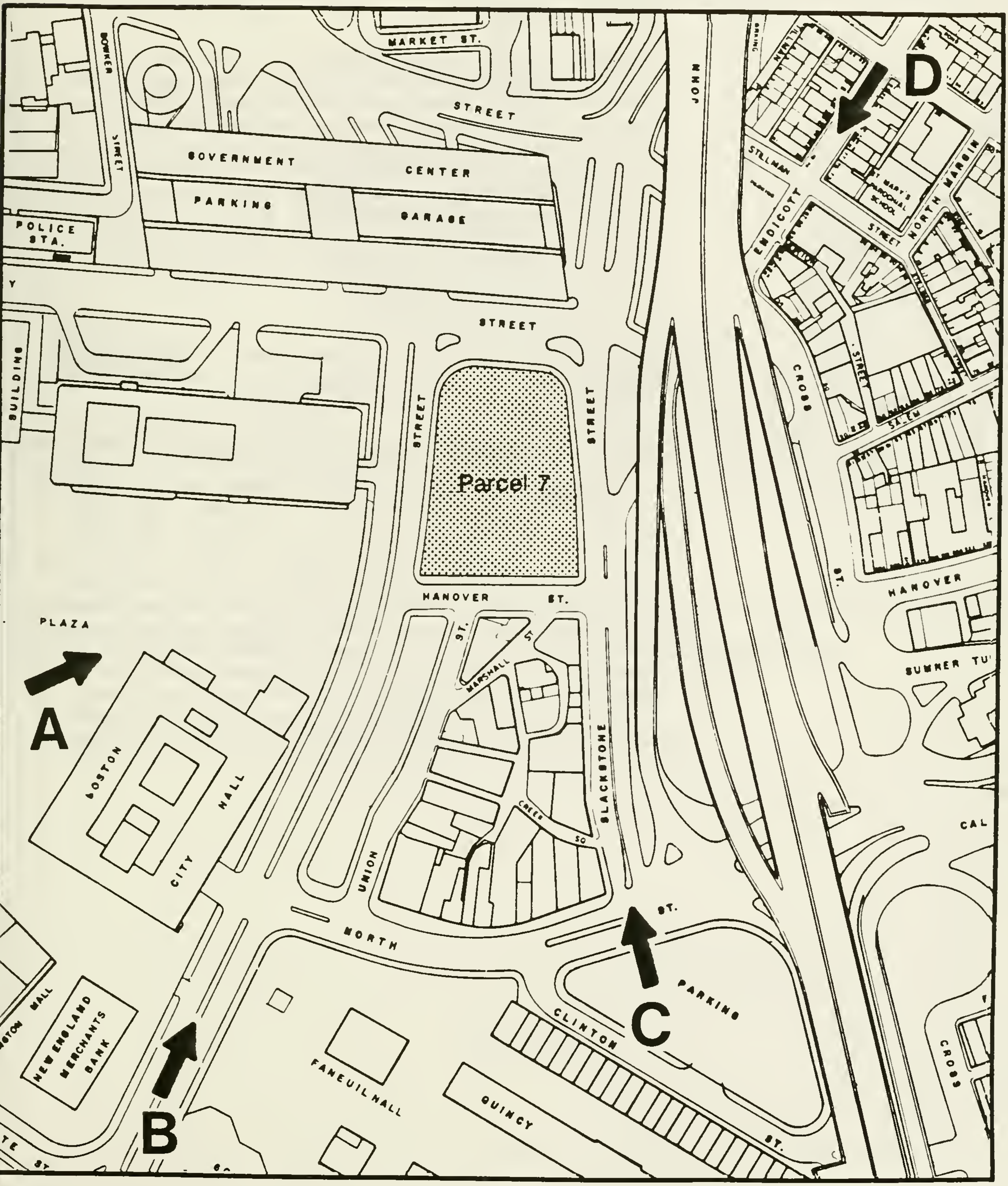
The discussion and drawings within this section outline the design impacts on the visual environment likely to occur from proposed development of Parcel 7. These effects are described through a series of eye-level views of the project as seen from Government Center, from New Congress Street, and from the North End neighborhood. The accompanying map (see Exhibit IV E-1) identifies the vantage point from which each view is observed. Each view compares the existing condition (No-Build Alternative) with the proposed project. These views are based on computer-generated, three-dimensional visual modeling from set distances at set elevations along specific streets. An accurate representation of what would actually be experienced by the viewer is presented.

The design characteristics used as criteria to evaluate the visual impact of the proposed project include:

- Height
- Scale
- Massing
- Connections/Linkage
  - Physical
  - Visual
  - Image
- Architectural Character
- View Corridors
- Pedestrian Activity

Exhibit IV E-1

Views Analyzed



Visual Analysis

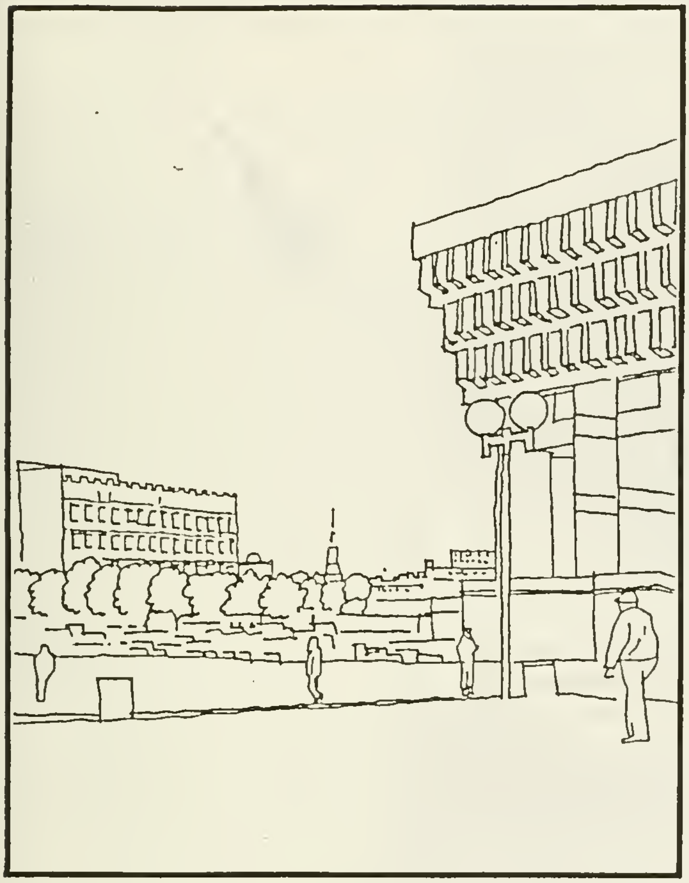
View A - Existing Conditions: This view originates at the Government Center MBTA station, and extends over Parcel 7 to the steeple of the Old North Church (see Exhibit IV E-2). With Boston's modern Government Center development standing in the foreground of this well known historic landmark, the view suggests a link between Boston's present and its past. In order to ensure that proposed development does not obscure views of the Old North Church, the BRA has established a building height limit of 42 feet within specific boundaries of this view corridor. These boundaries are shown in Exhibit IV E-3.

Also visible from this vantage point is the elevated Central Artery, as well as portions of the North End neighborhood.

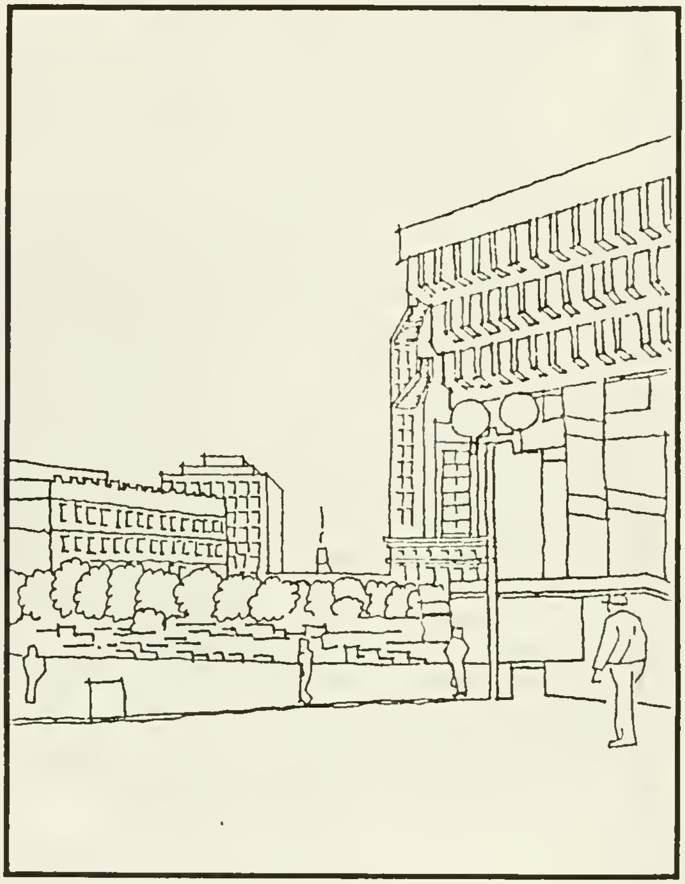
View A - Proposed Project: As can be seen in this view between the hotel and office buildings, the visibility of the Old North Church steeple remains essentially unchanged (see Exhibit IV E-2). This has been accomplished by strict adherence to the visual easement. The office building mass and scale reflect that of the Government Center garage, while the hotel guest wing under the Government Center prow is in scale with the municipal complex. The visual linkage to the church is maintained through the easement, under which the development's one story hotel ballroom spans the street cut through from Blackstone to New Congress Street. The urban design guideline of screening of the Central Artery has also been accomplished by the development.

Exhibit IV E-2

Visual Analysis



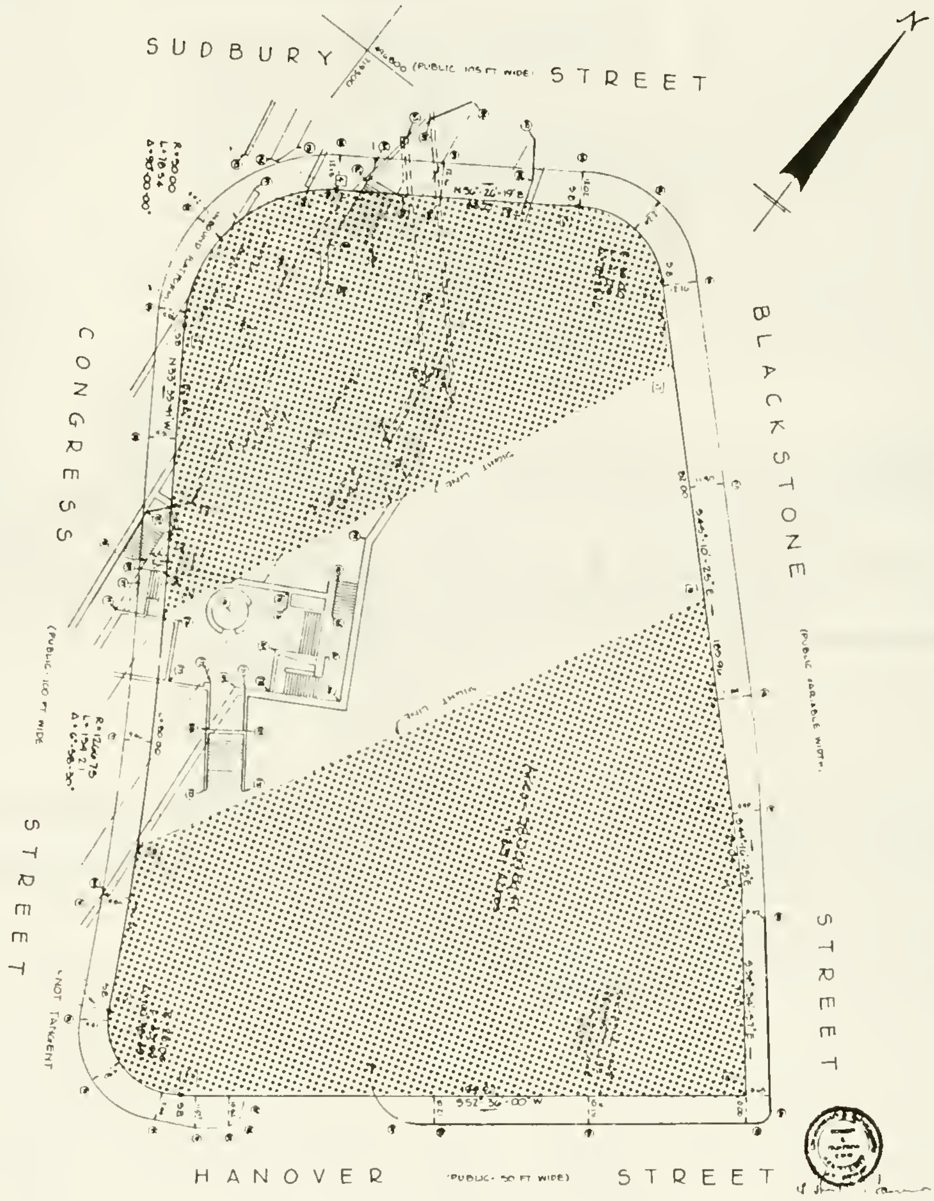
View A: Existing Conditions



View A: Preferred Alternative

Exhibit IV E-3

Visual Easement


SUDBURY (PUBLIC 105 FT WIDE) STREET
CONGRESS (PUBLIC 100 FT WIDE) STREET
BLACKSTONE (PUBLIC VARIABLE WIDTH) STREET
HANOVER (PUBLIC 50 FT WIDE) STREET
N
SIGHT LINE
SIGHT LINE
N36°26'19"E
S52°36'00"W
S45°10'25"E
NOT TANGENT

REFERENCES
- PROPERTY LINE MAP PARCEL 7 B R A GOVERNMENT CENTER PROJECT DATED NOV 15, 1961 REVISED JAN 31, 1962
- MASTER PARCEL PLAN B R A GOVERNMENT CENTER PROJECT DATED APRIL, 1962
- CITY OF BOSTON DEPT OF PUBLIC WORKS ENGINEERING DIVISION FIELD NOTES BOOK 971 PAGE 47
- BOOK 1014 PAGE 17
- BOOK 1019 PAGE 115

NOTES
- ALL SUBWAY LOCATIONS ARE AT FACE OF BRICK, EXCEPT WHEN LINE WALL LOCATIONS NOS 151, 152 & 153 WHICH ARE AT VERTICAL FACE OF CONCRETE WALL
- ▢ PROPERTY CORNER
- ● CURBING LOCATION
- ⊙ SUBWAY LOCATION
- SB STONE BOUND
- COORDINATES ARE IN MASSACHUSETTS COORDINATE SYSTEM BASED UPON THOSE INDICATED ON B R A MASTER PARCEL PLAN REFERENCED
- UNDERGROUND STRUCTURES SHOWN ARE BASED UPON FIELD LOCATIONS AND MBTA PLANS
  IT IS NOT WARRANTED THAT THE SIZE AND LOCATIONS OF SUBWAY WALLS ARE EXACTLY AS SHOWN NOR THAT ALL UNDERGROUND STRUCTURES ARE SHOWN

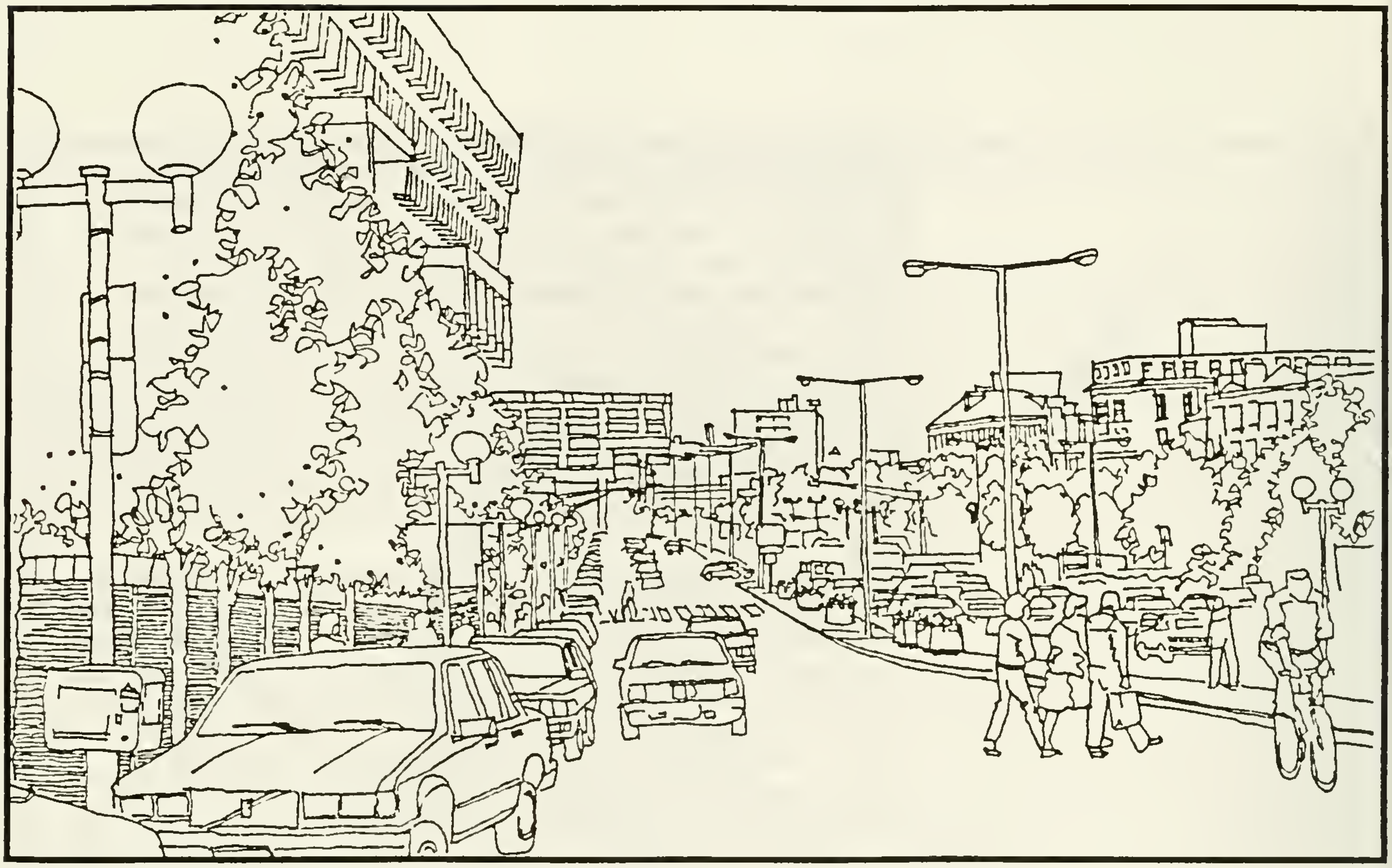
PLAN OF LAND
WITH
SUBWAY AND CURBING LOCATIONS
BOSTON, MASS.
SCALE OCT 22, 1985
R E CAMERON & ASSOCIATES, INC
NORWOOD, MASS.

View B - Existing Conditions: This view originates at the intersection of New Congress and State Street, and extends in a northeast direction toward the proposed development (see Exhibit IV E-4). Curley Park is located in the foreground on the right, with its furthest boundary blending into that of the Parcel 7 site. The historic architecture of the Blackstone Block lines the right-hand side of this view and is contrasted by the modern character of City Hall and the Government Center Garage, which appear on the left side of the view. The view is terminated in the background by a cluster of structures which includes the Central Artery and a number of North Station area buildings.

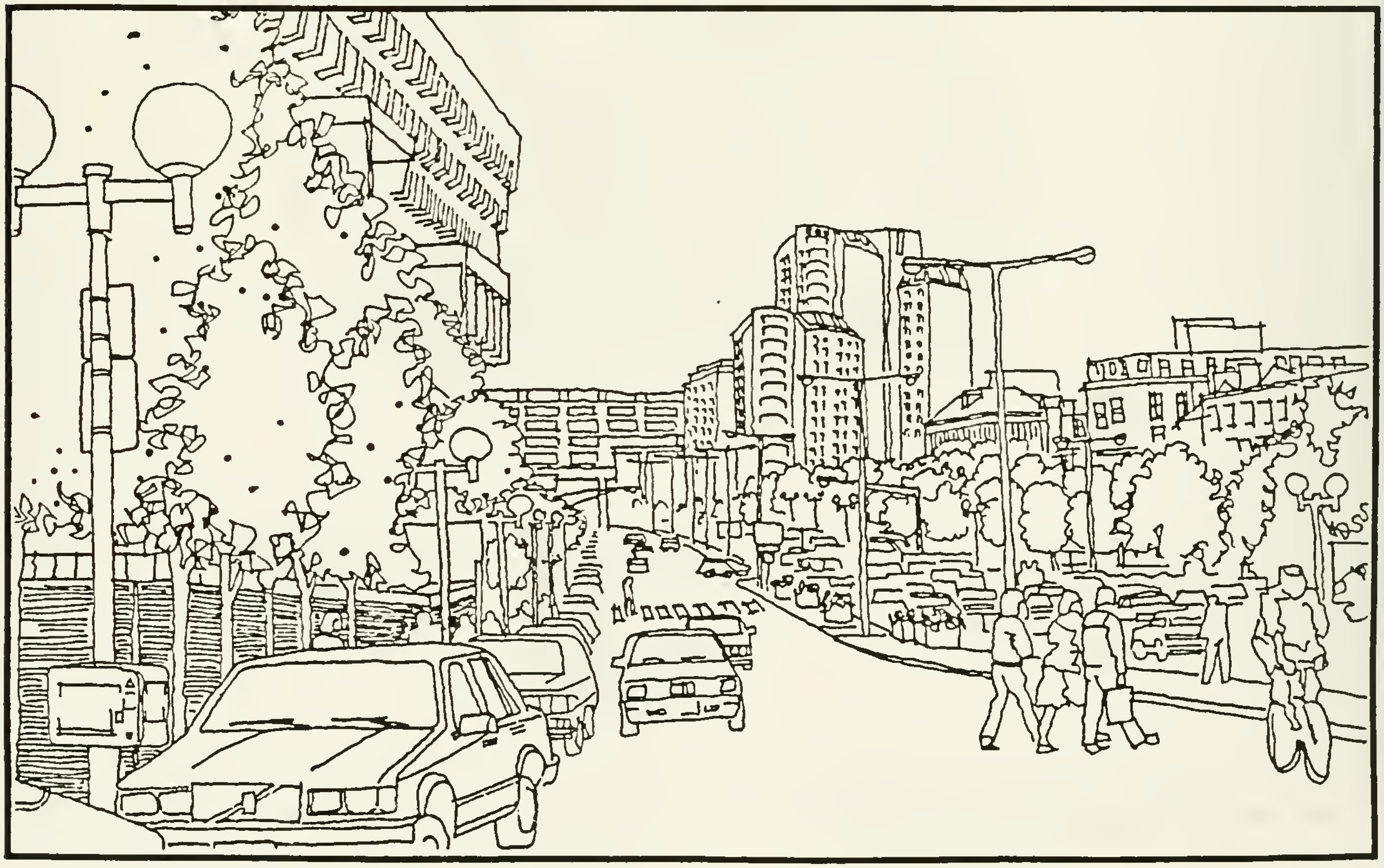
View B - Proposed Project: The Parcel 7 Development creates the terminus of View B looking north along New Congress Street (see Exhibit IV E-4). The hotel guest wing emerges from the foot of Curley Park defining its Hanover Street edge. Divided into smaller elements, the hotel appears similar in scale to the Blackstone Block. The architectural details, roof treatment, window proportions and building materials reinforce this connection to the traditional architecture of the Blackstone Block. The proposed Office structure in the background reflects the height of the Government Center garage and completes the screening of the Central Artery beyond.

Exhibit IV E-4

Visual Analysis



View B: Existing Conditions



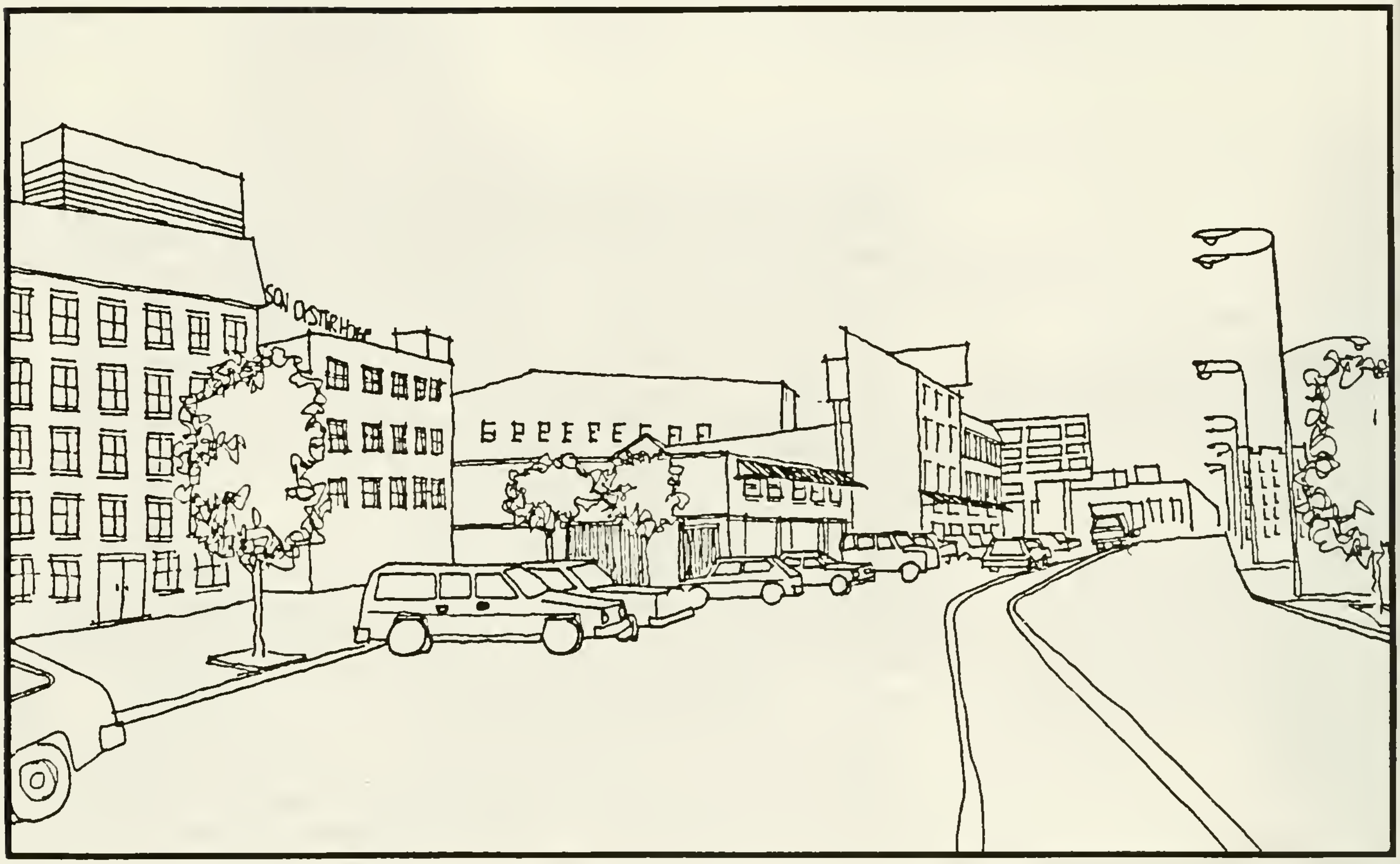
View B: Preferred Alternative

View C - Existing Conditions: This view originates at North Street, extends north along Blackstone Street and terminates at the Boston Garden/North Station buildings (see Exhibit IV E-5). The historic Blackstone Block and Haymarket appear to the left with the Central Artery on the right creating the barrier to the north end. The Government Center garage is located in the views midground, juxtaposing historic Boston against the modern structure. Parcel 7 is located between the garage and the Haymarket buildings.

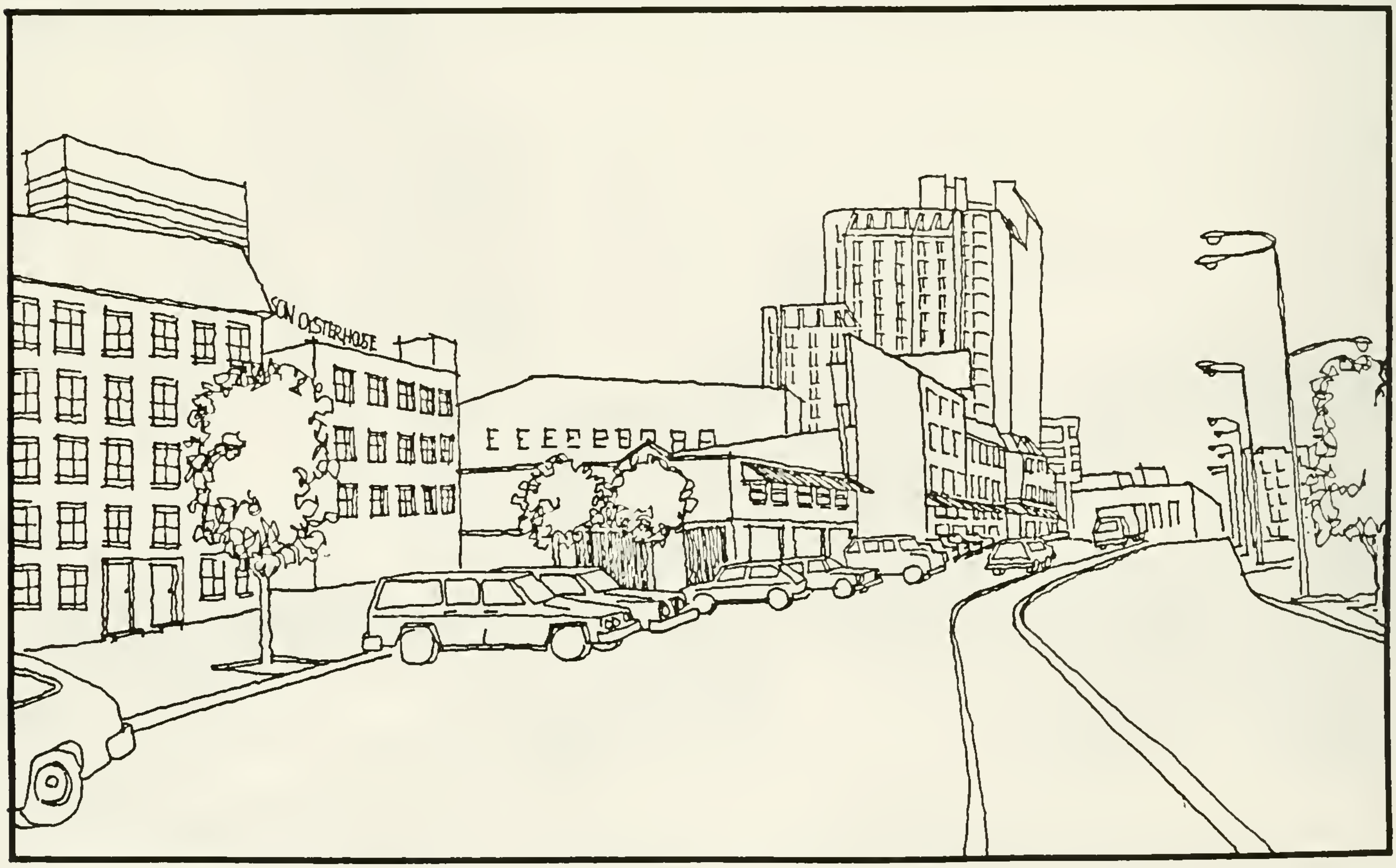
View C - Proposed Project: The Parcel 7 Development will reinforce the 60 foot street wall of the Blackstone Block along the west side of Blackstone Street (see Exhibit IV E-6). The hotel/office base of brick and stone is designed to emulate the architectural detail of the adjoining traditional architecture and will provide a backdrop for a refurbished Haymarket streetscape (see Exhibit IV E-7). The hotel guest wing has been stepped back from Blackstone Street. Its mass will not be apparent as one walks along the west side of the Haymarket.

Exhibit IV E-5

Visual Analysis



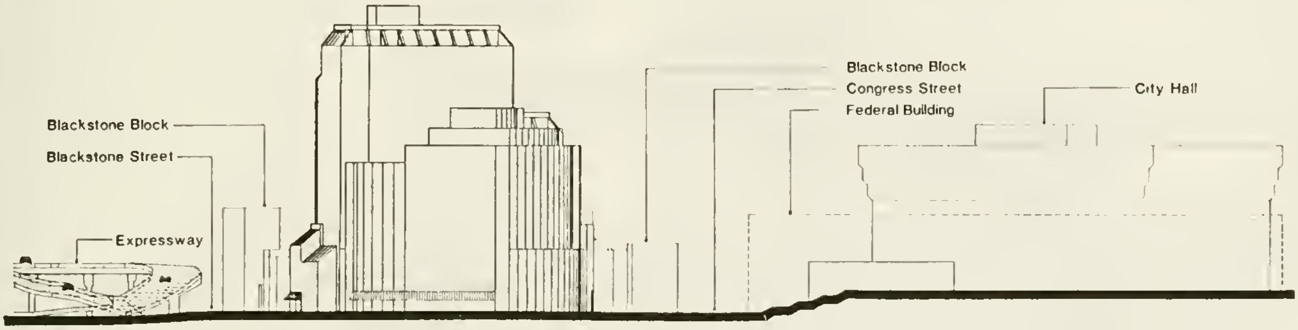
View C: Existing Conditions



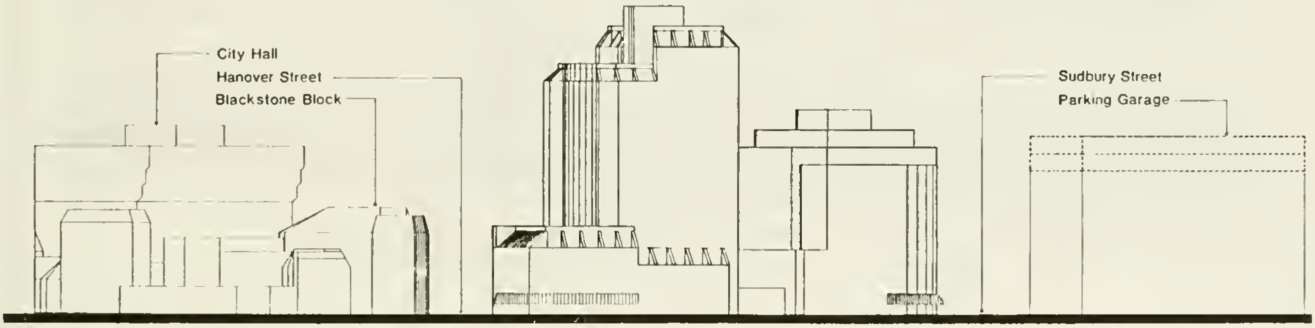
View C: Preferred Alternative

Exhibit IV E-6

Massing Compatability



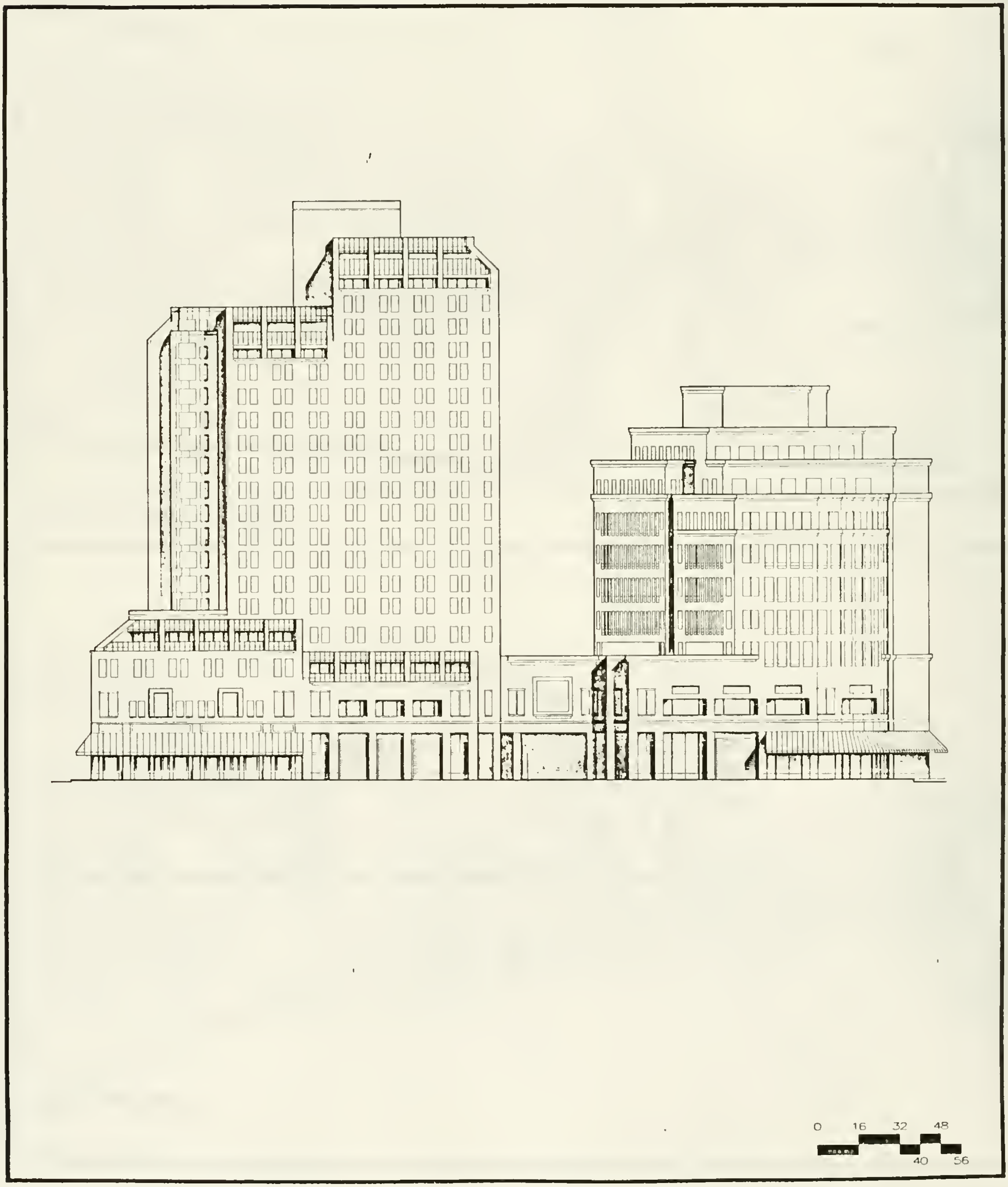
SOUTHWARD FROM NEW SUDBURY



WESTWARD FROM BLACKSTONE

Exhibit IV E-7

Blackstone Street Elevation



View D - Existing Conditions: This view originates at the corner of Endicott and Cooper Streets in the North End neighborhood, and extends beyond the elevated Central Artery, which blocks the lower portion of the view (see Exhibit IV E-8). The low-rise scale of North End development in the foreground is contrasted with the high-rise elements of downtown Boston. The Blackstone Block cannot be seen from this vantage point, but its low-rise character serves to provide an area of transition between the North End and Boston's high-rise structures.

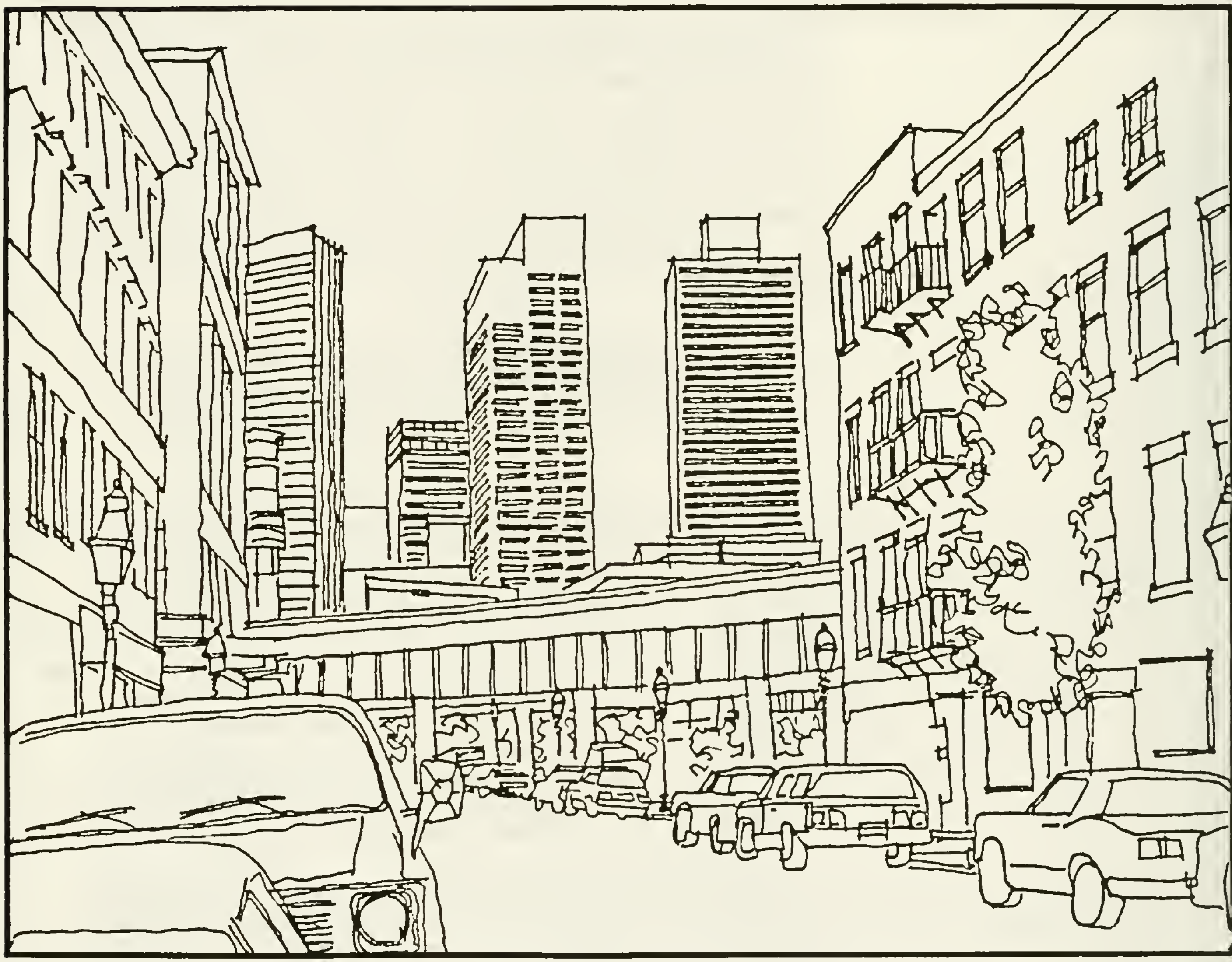
View D - Proposed Project: In this representation of the Preferred Alternative, the hotel guest wing can be seen within the visual context of other high-rise development in downtown Boston.

The hotel is visible at the farthest possible point from the North End neighborhood, while the lower office building can be seen at the right (see Exhibit IV E-9). Both the hotel and office building are designed with architectural materials, forms and details consistent with the vernacular of surrounding neighborhoods. The Central Artery in the foreground obstructs views to the low-rise element of the development, its enclosed loading docks, the Haymarket and the extensive street level public improvements. The public improvements, including granite and brick paving, lighting pedestrian canopies and refurbished transit facilities, will improve the daily commute of many North Enders.

The overall construction of the Parcel 7 Development, with its ground floor retail and below grade parking, will act as a gateway to the Haymarket area. Further, its traditional architectural design will unify the entire Blackstone Street frontage by screening the Government Center garage's disparate style.

Exhibit IV E-8

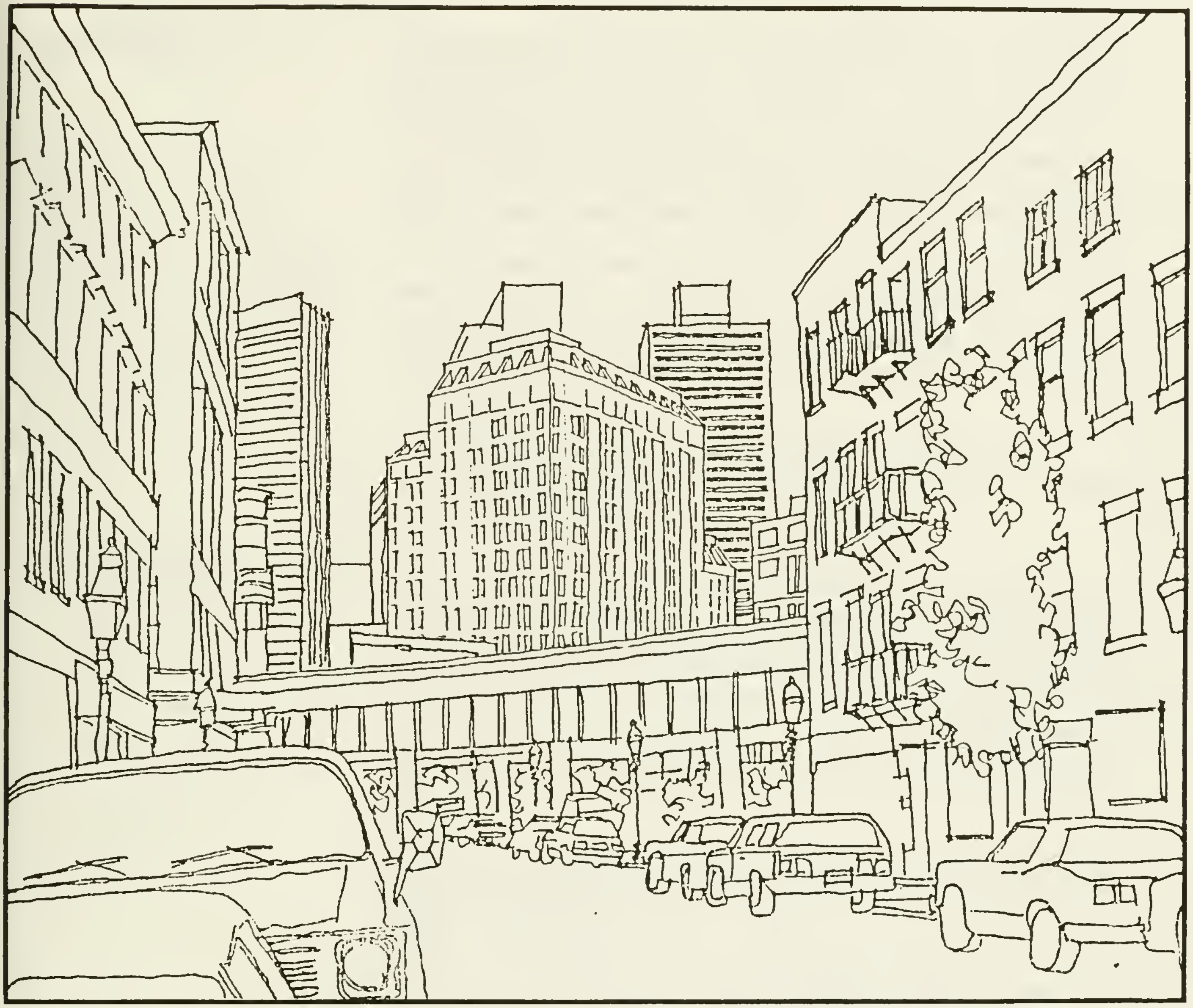
Visual Analysis



View D: Existing Conditions

Exhibit IV E-8

Visual Analysis



View D: Preferred Alternative

IV. F Shadow Analysis

INTRODUCTION

The shadow analysis that was performed for the area surrounding the Parcel 7 Project included 22 individual readings that were taken at various times of the day during specific days of the year according to BRA requirements. The studies were conducted between the hours of 9:00 a.m. and 3:00 p.m., during the months of March, June, September, October, November and December.

The following data lists the exact time and dates for which the shadow readings were performed.

- October 21st and November 21st readings were taken at 10:00 a.m., 11:00 a.m., 12:00 p.m., 1:00 p.m., and 2:00 p.m.
- On the 21st day of March, June, September and December, readings were taken at 9:00 a.m., 12:00 p.m. and 3:00 p.m.

PROBABLE PROJECT IMPACTS

The study showed no serious shadow impact on the surrounding neighborhoods. There was a slight impact on the MBTA Bus Station. This was indicated during the October, November and December analysis. The Parcel 7 shadow precedes the Parking Garage's own morning shadow across the Bus Station Zone. The analyses indicate that by approximately 1:00 p.m., the Parcel 7 Project no longer contributes to the shading of the Bus Station.

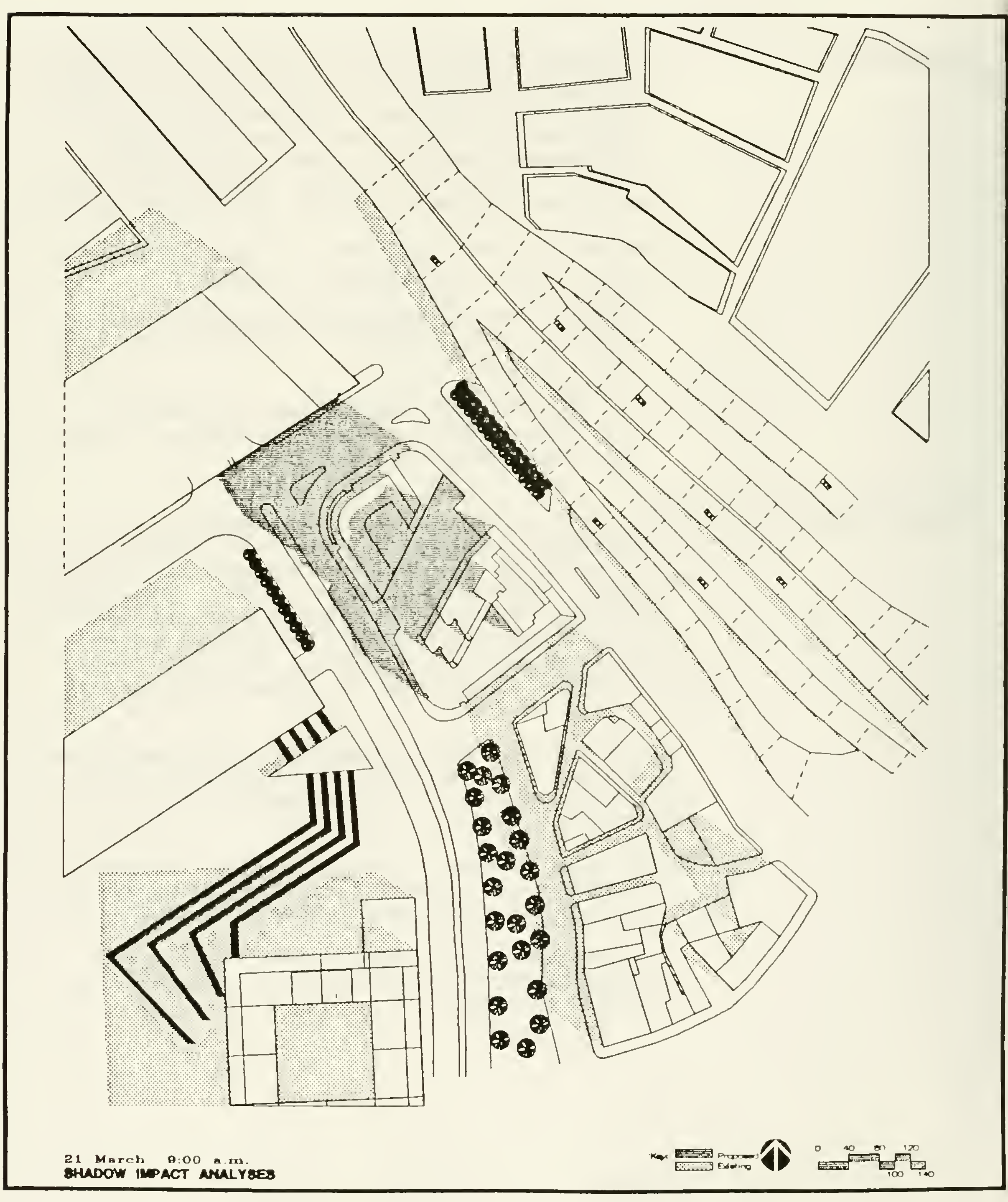
There was also a slight impact to the Expressway and North End. However, only on December 31 at 3:00 p.m. did the analysis indicate a net shadow reaching the North End.

The Shadow analyses showed no impact on the Blackstone Block, which is situated to the south and southwest of Parcel 7, out of the shadow pattern altogether.

It can be concluded that the Parcel 7 Project net shadows impose no significant shadow impacts on the surrounding areas.

Exhibit IV F-1

Shadow Analysis



21 March 9:00 a.m.
SHADOW IMPACT ANALYSES

Exhibit IV F-2

Shadow Analysis

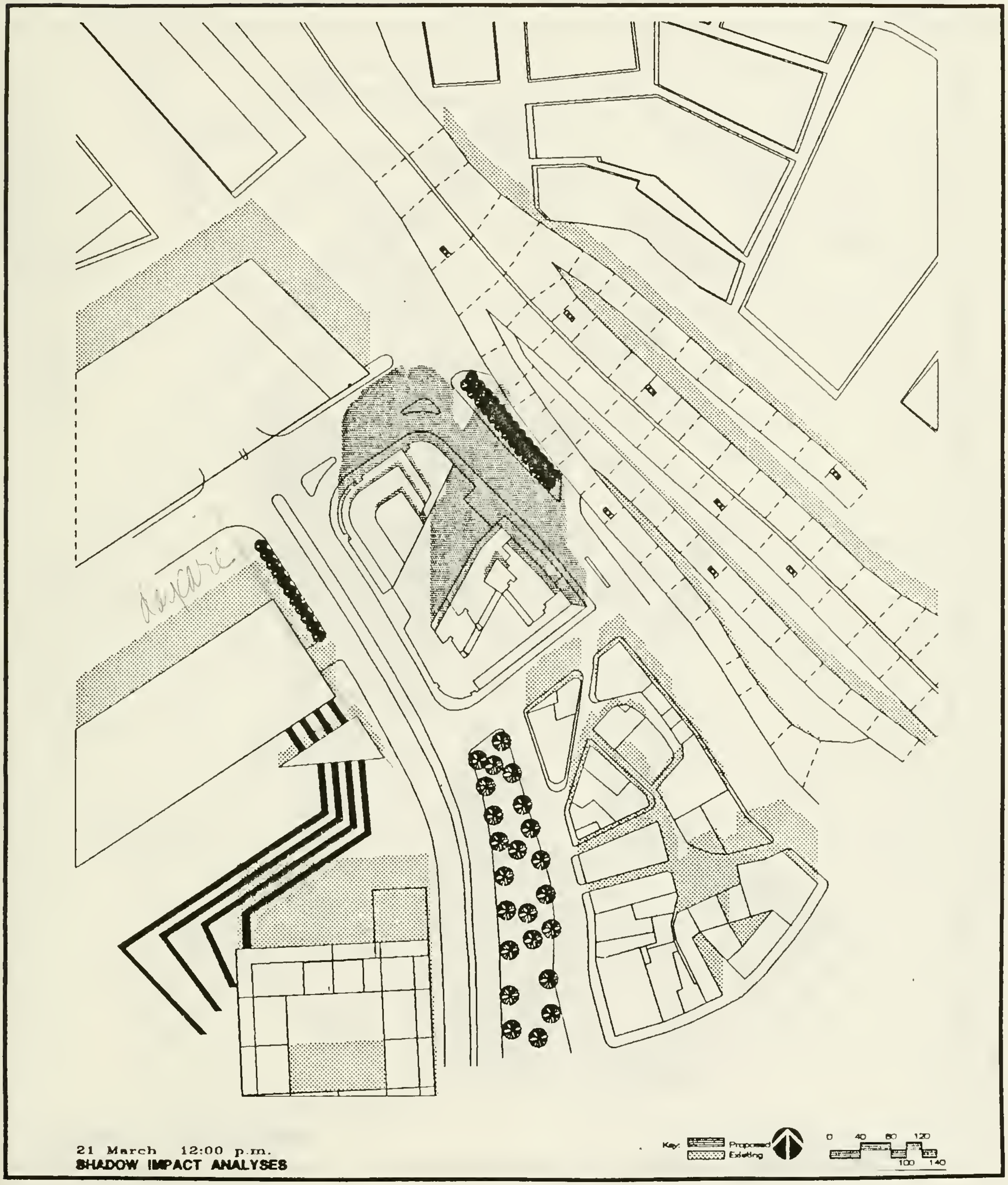
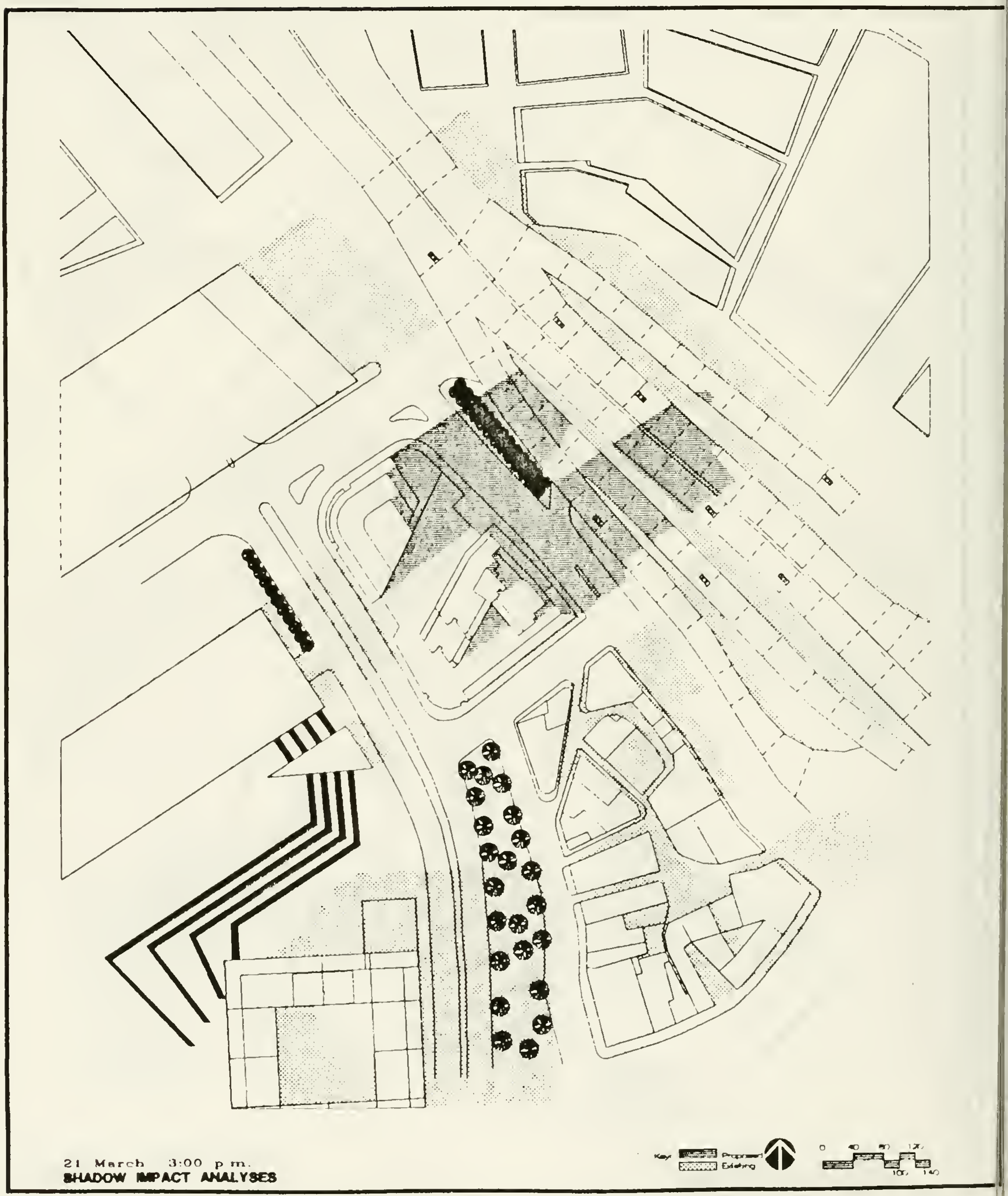


Exhibit IV F-3

Shadow Analysis



21 March 3:00 p.m.

SHADOW IMPACT ANALYSES

Exhibit IV F-4

Shadow Analysis

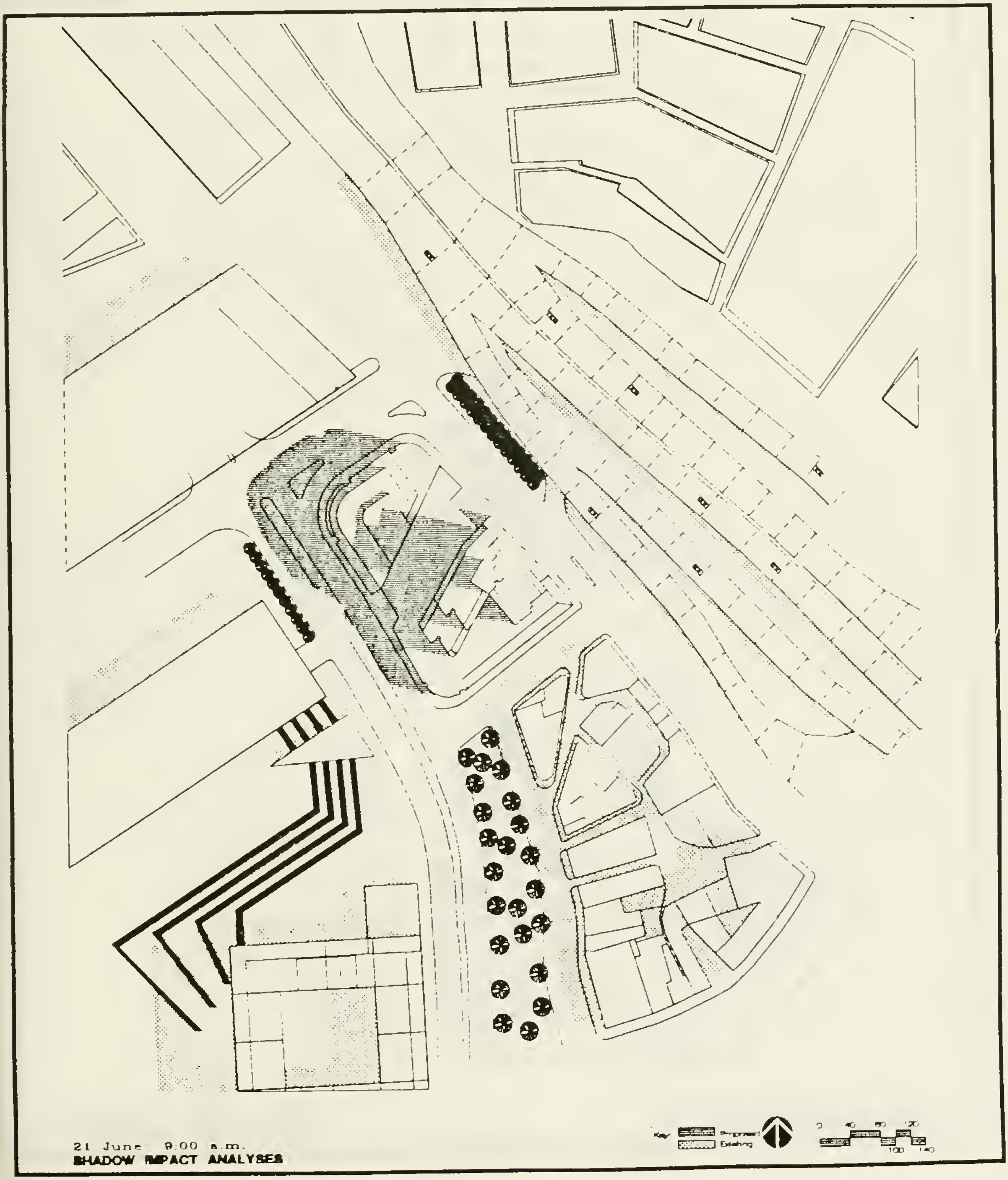


Exhibit IV F-5

Shadow Analysis

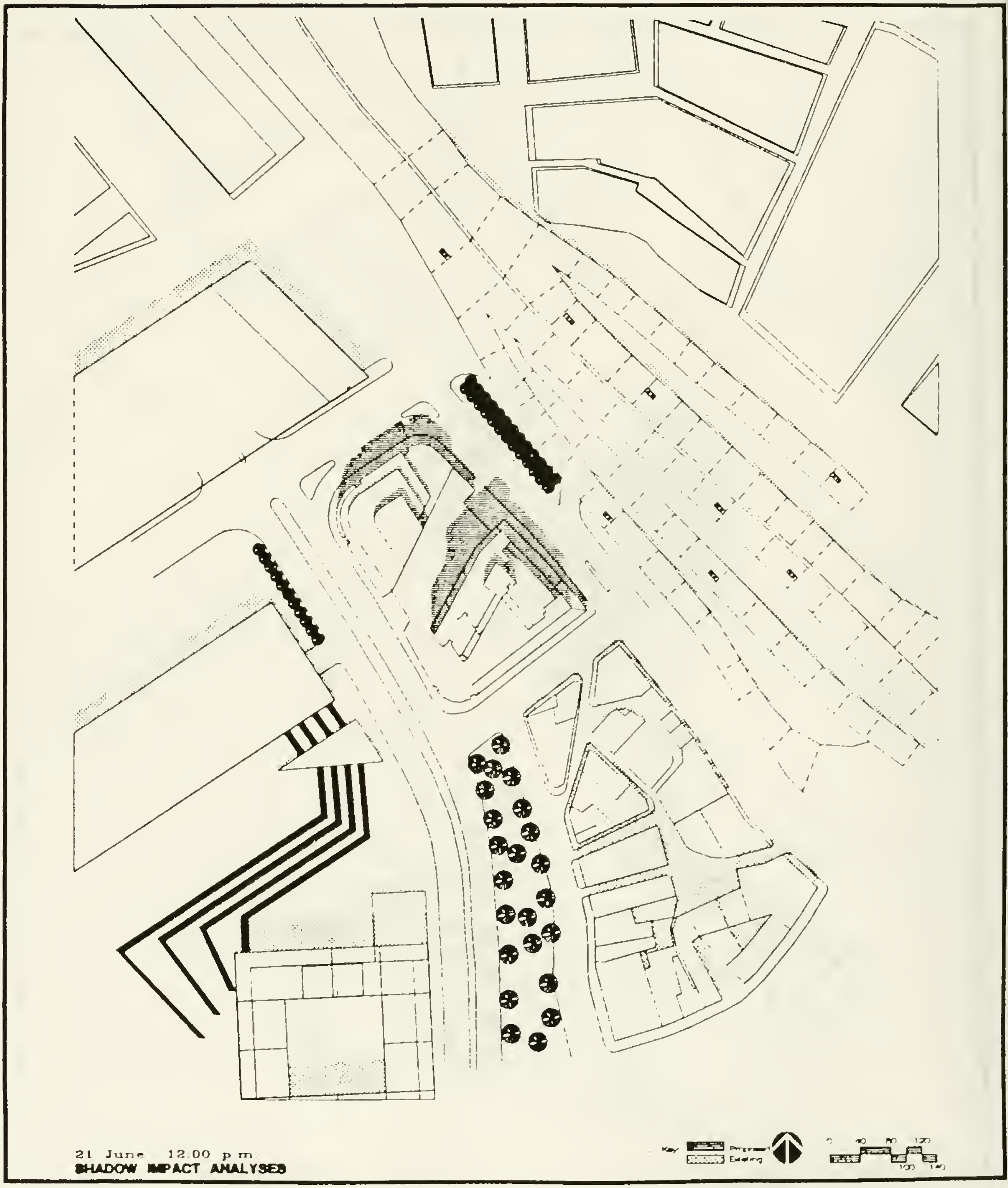


Exhibit IV F-6

Shadow Analysis

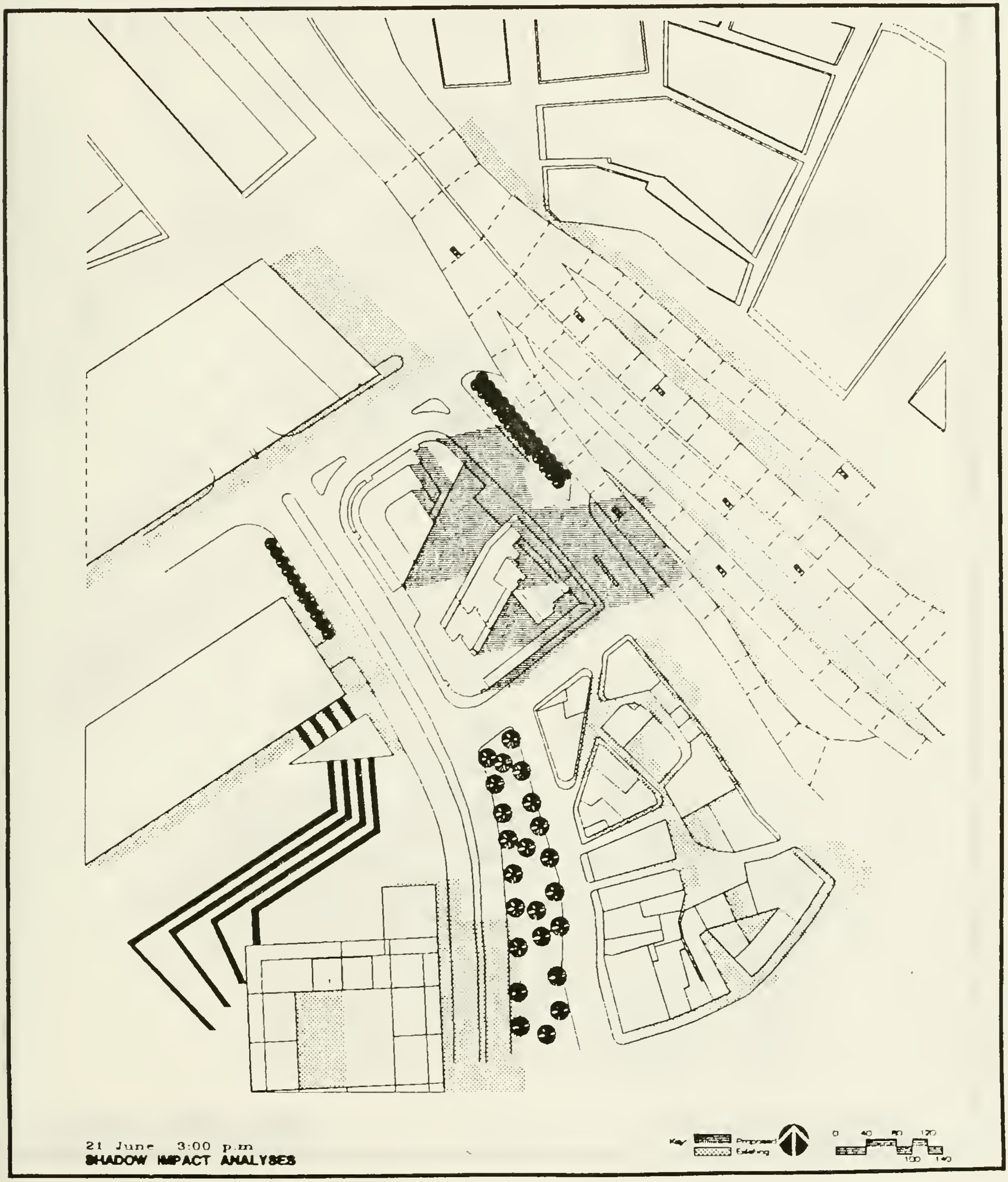
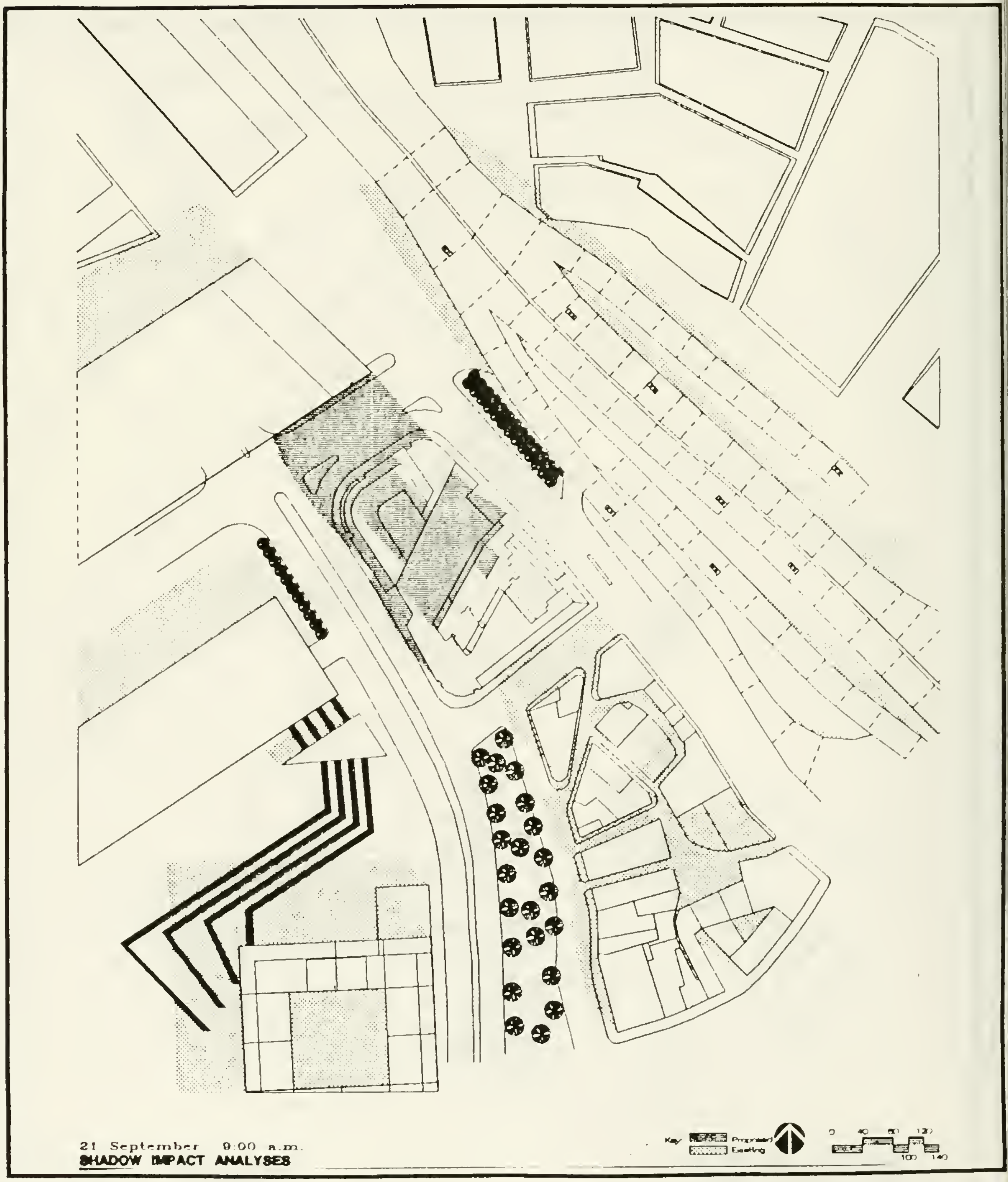


Exhibit IV F-7

Shadow Analysis



21 September 9:00 a.m.
SHADOW IMPACT ANALYSES

Exhibit IV F-8

Shadow Analysis

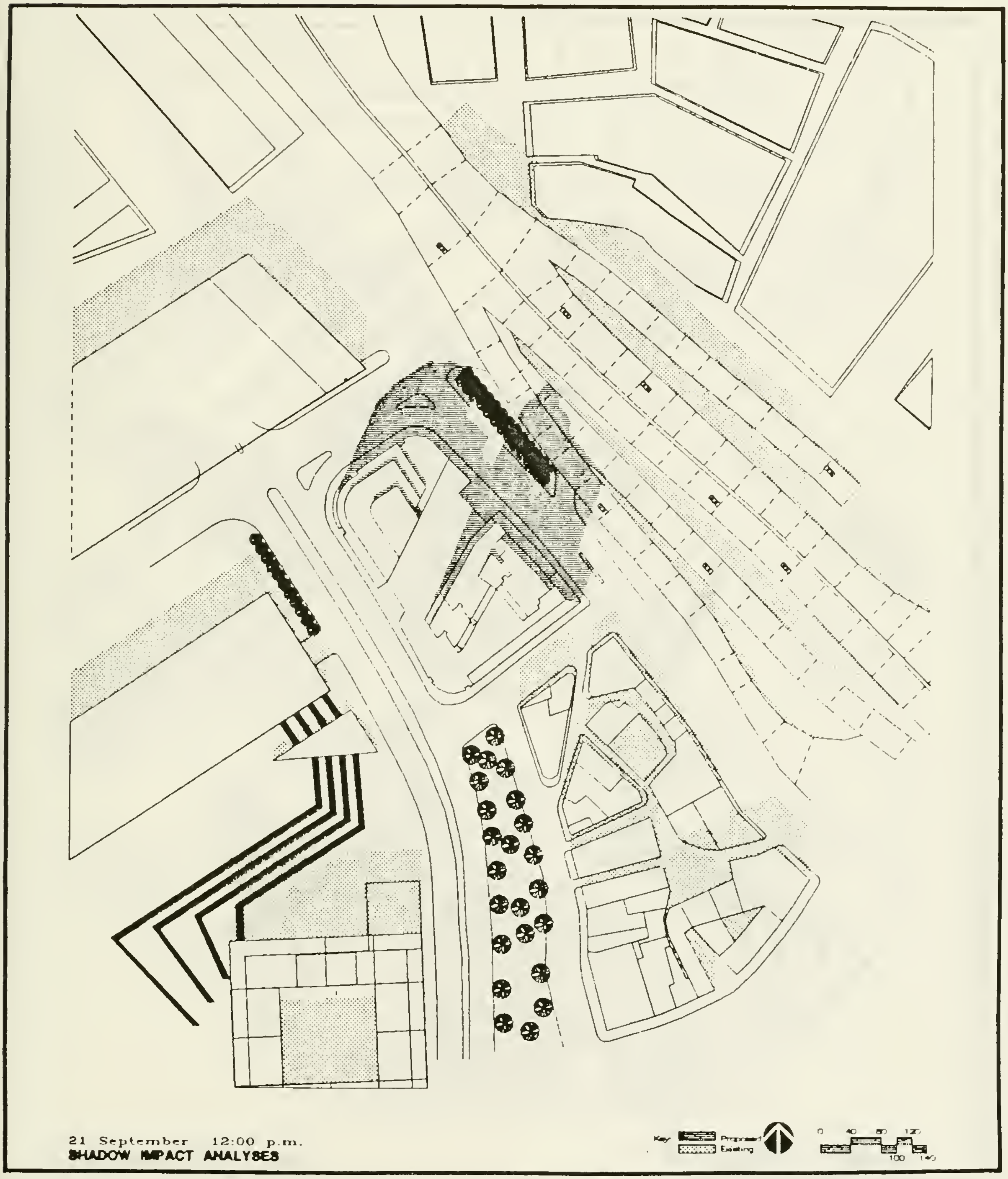
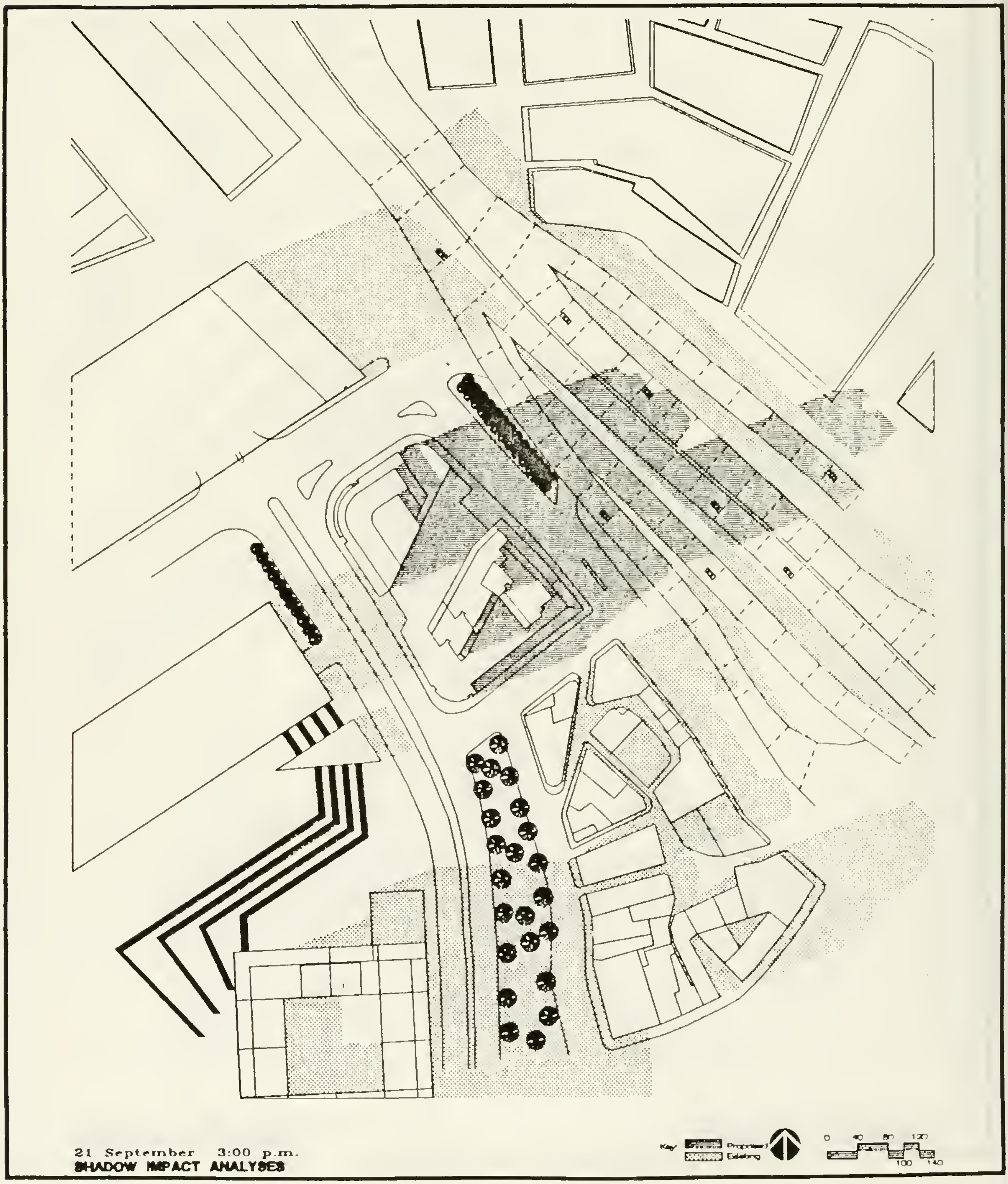


Exhibit IV F-9

Shadow Analysis



21 September 3:00 p.m.
SHADOW IMPACT ANALYSES

Exhibit IV F-10

Shadow Analysis

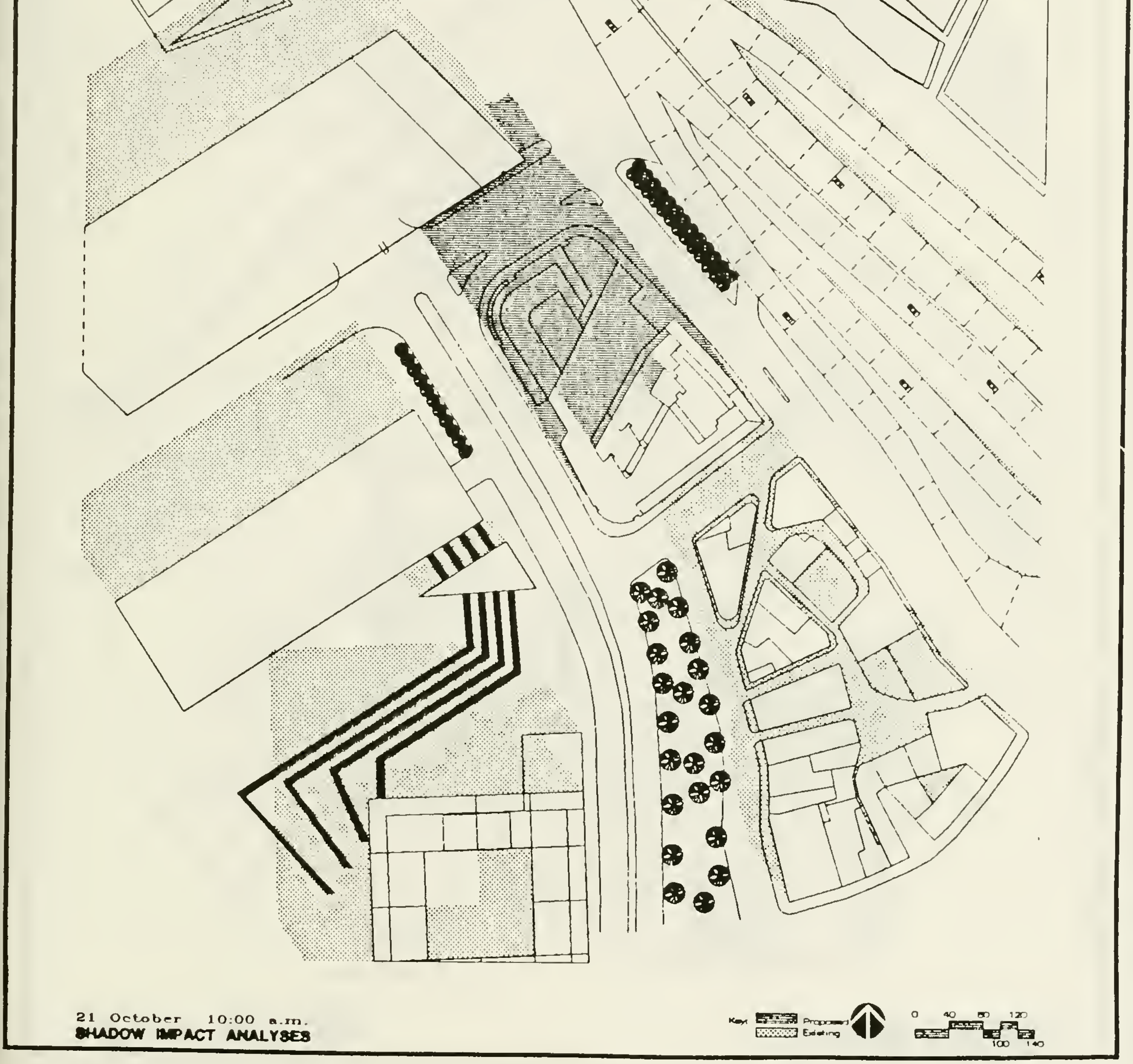


Exhibit IV F-11

Shadow Analysis

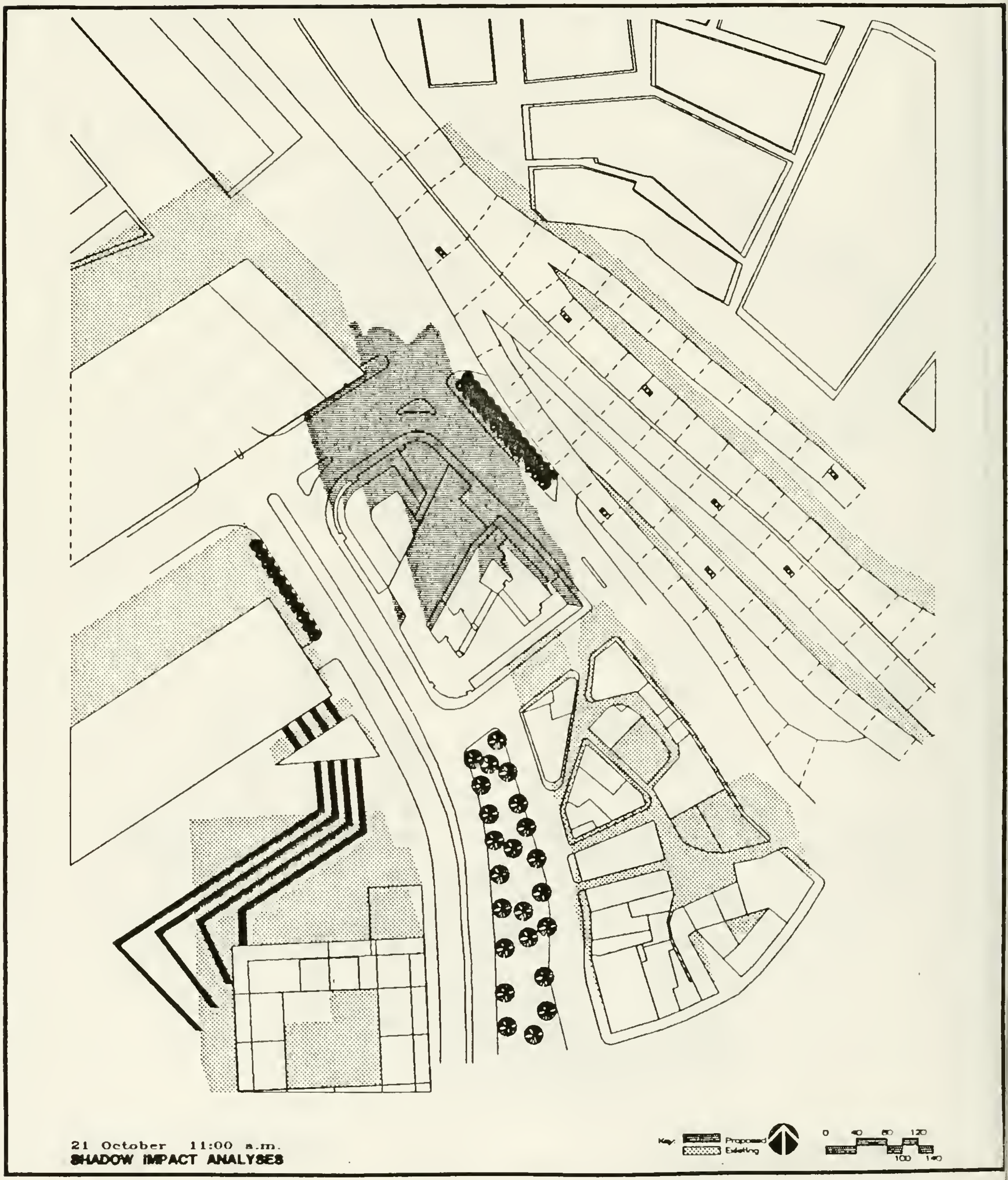


Exhibit IV F-12

Shadow Analysis

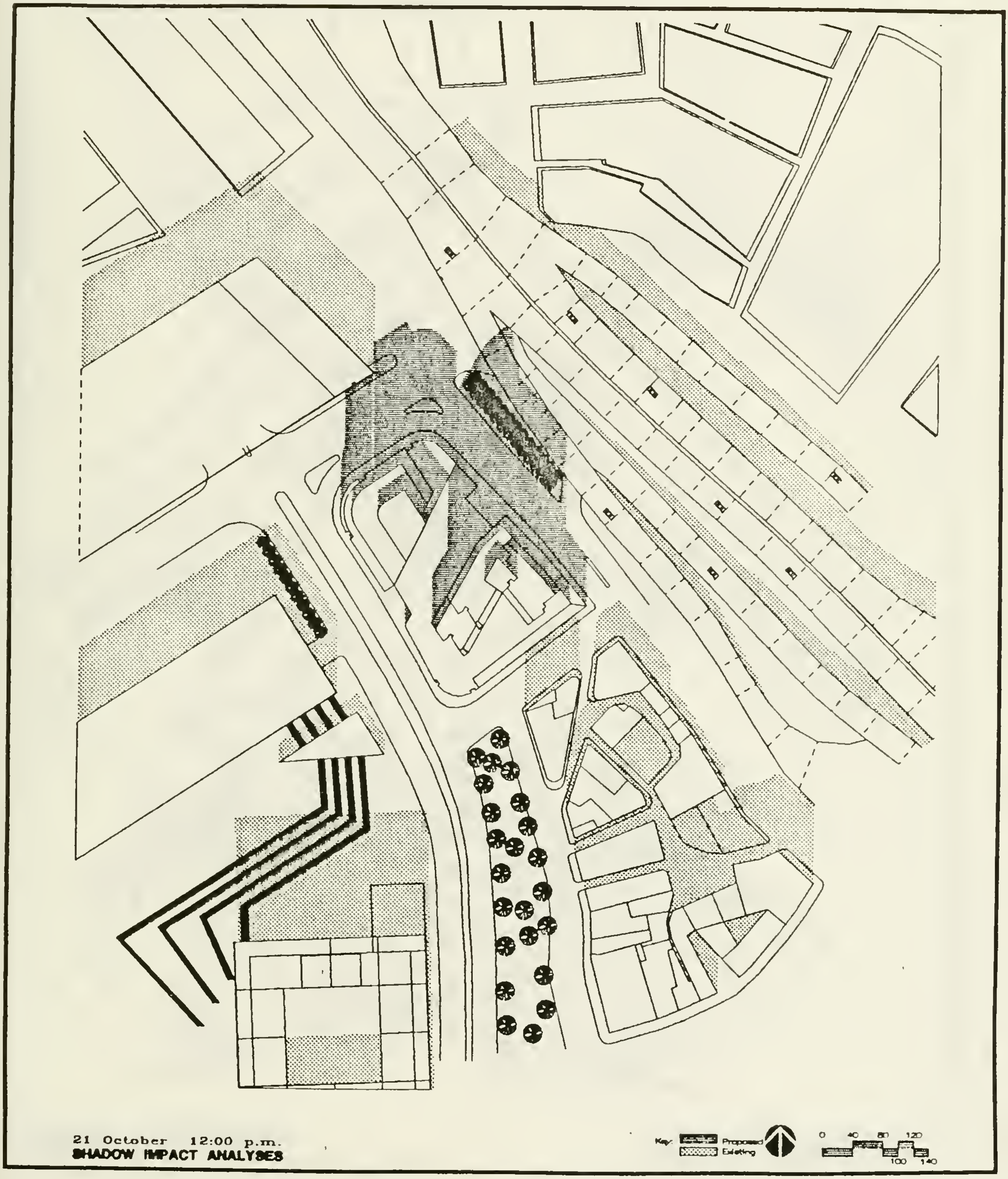
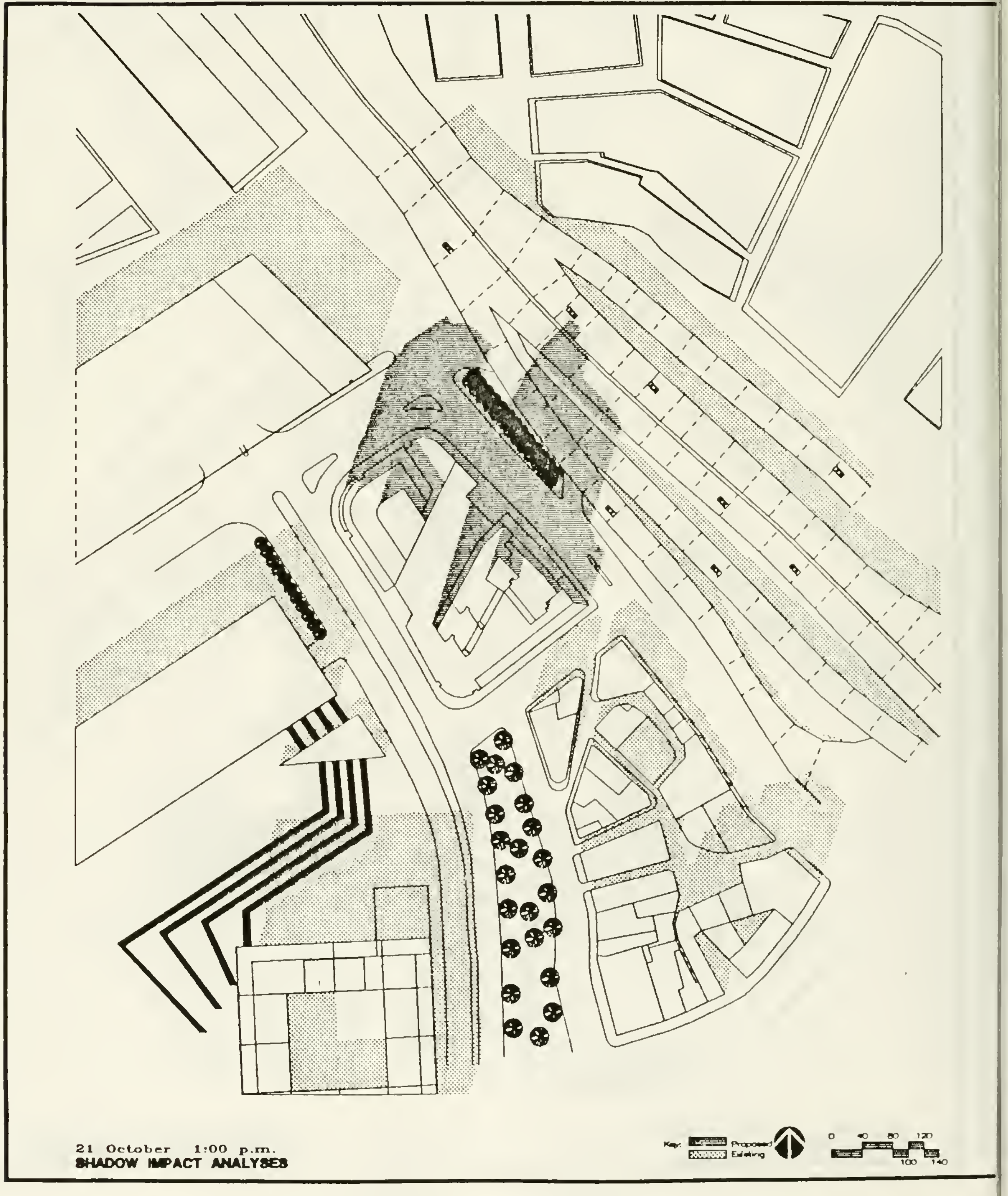


Exhibit IV F-13

Shadow Analysis



21 October 1:00 p.m.
SHADOW IMPACT ANALYSES

Exhibit IV F-14

Shadow Analysis

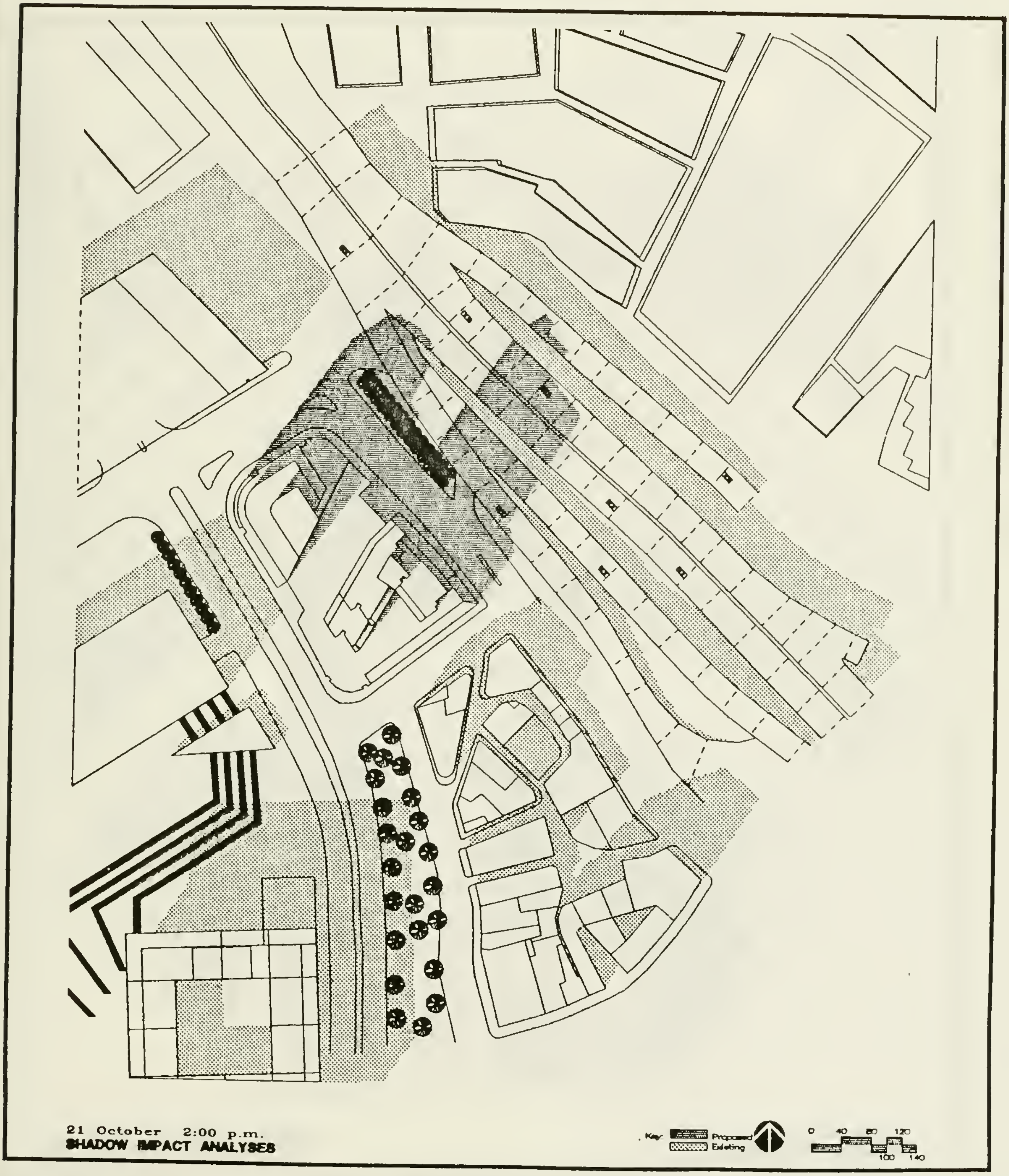


Exhibit IV F-15

Shadow Analysis

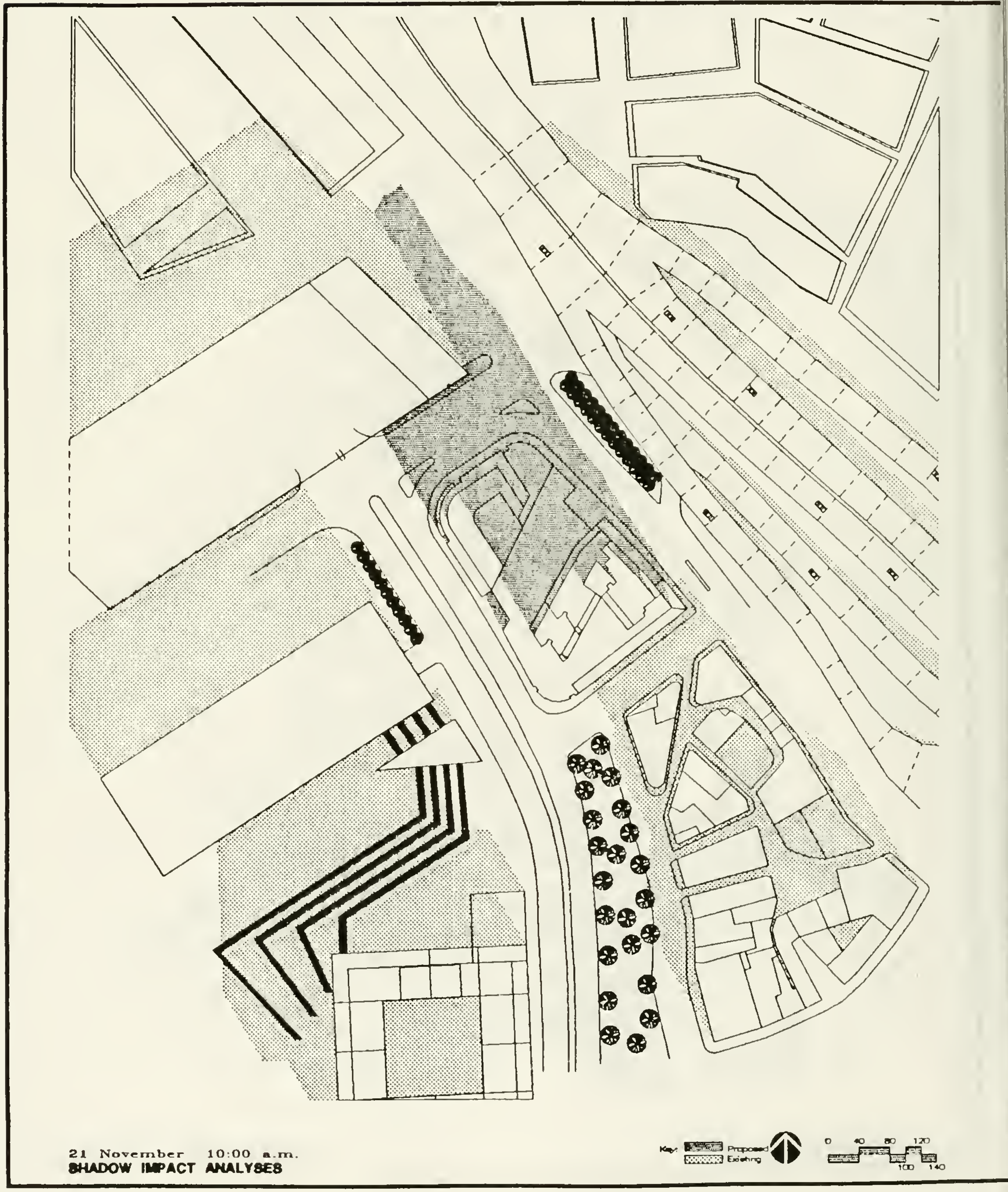


Exhibit IV F-16

Shadow Analysis

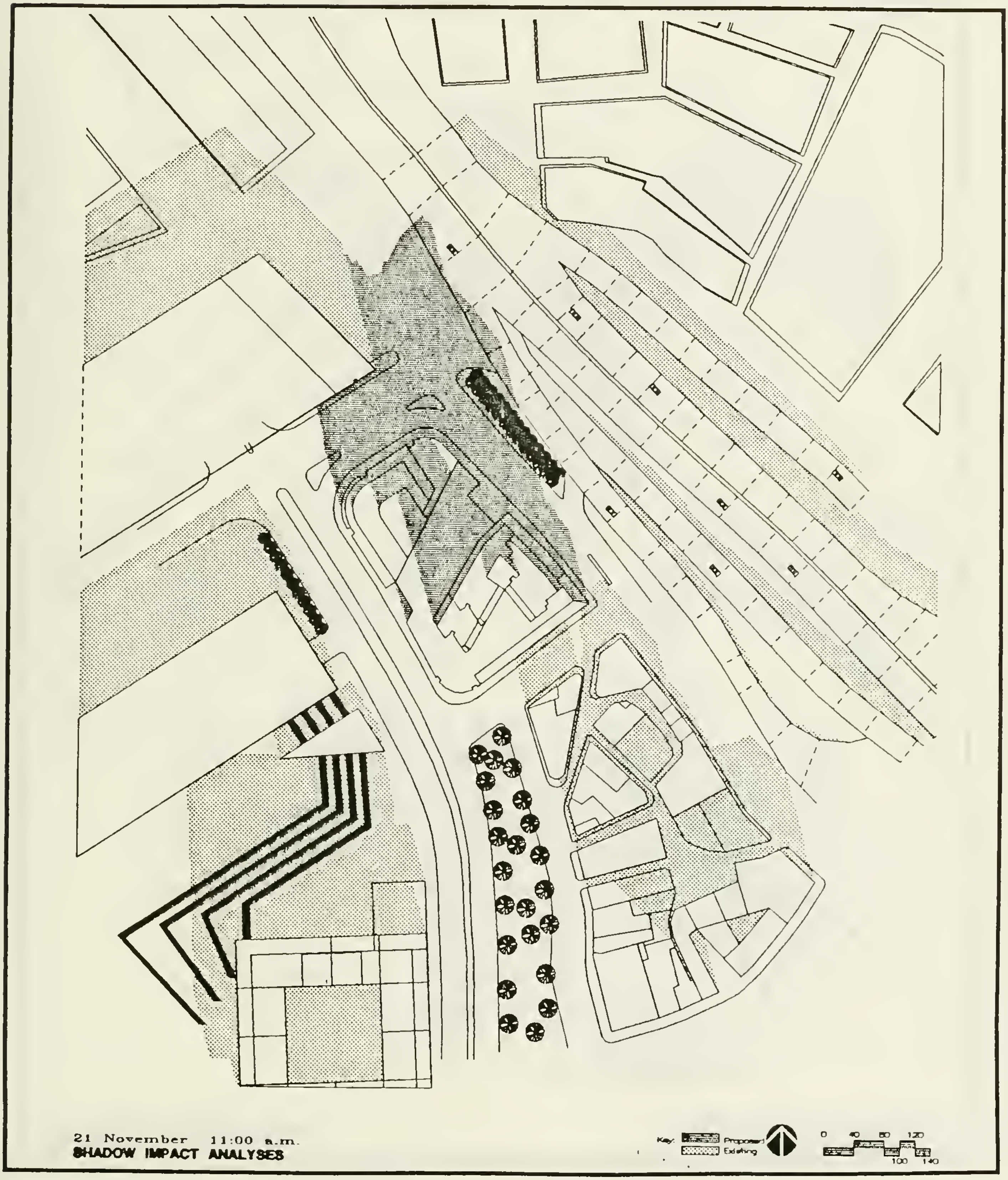


Exhibit IV F-17

Shadow Analysis

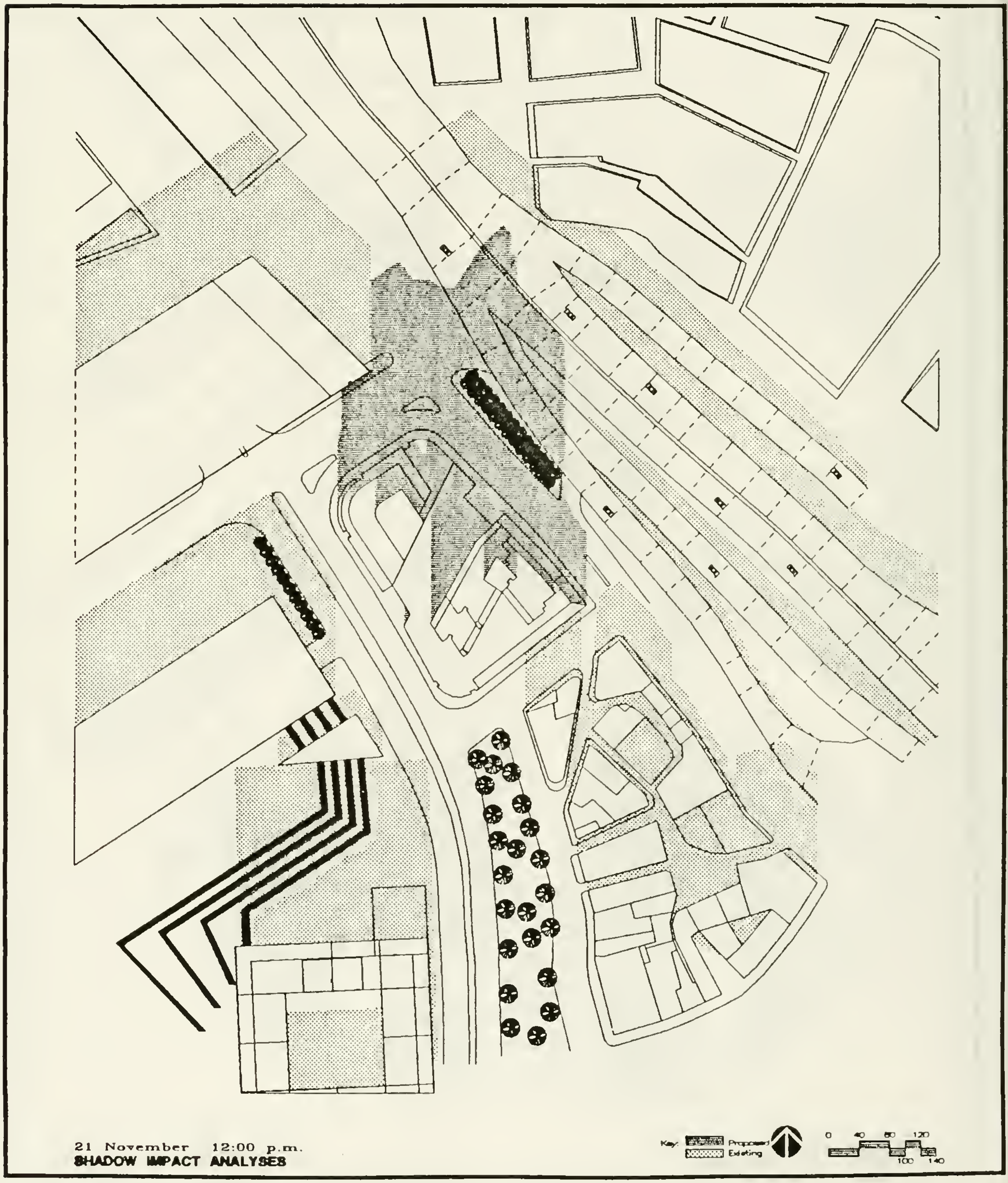


Exhibit IV F-18

Shadow Analysis

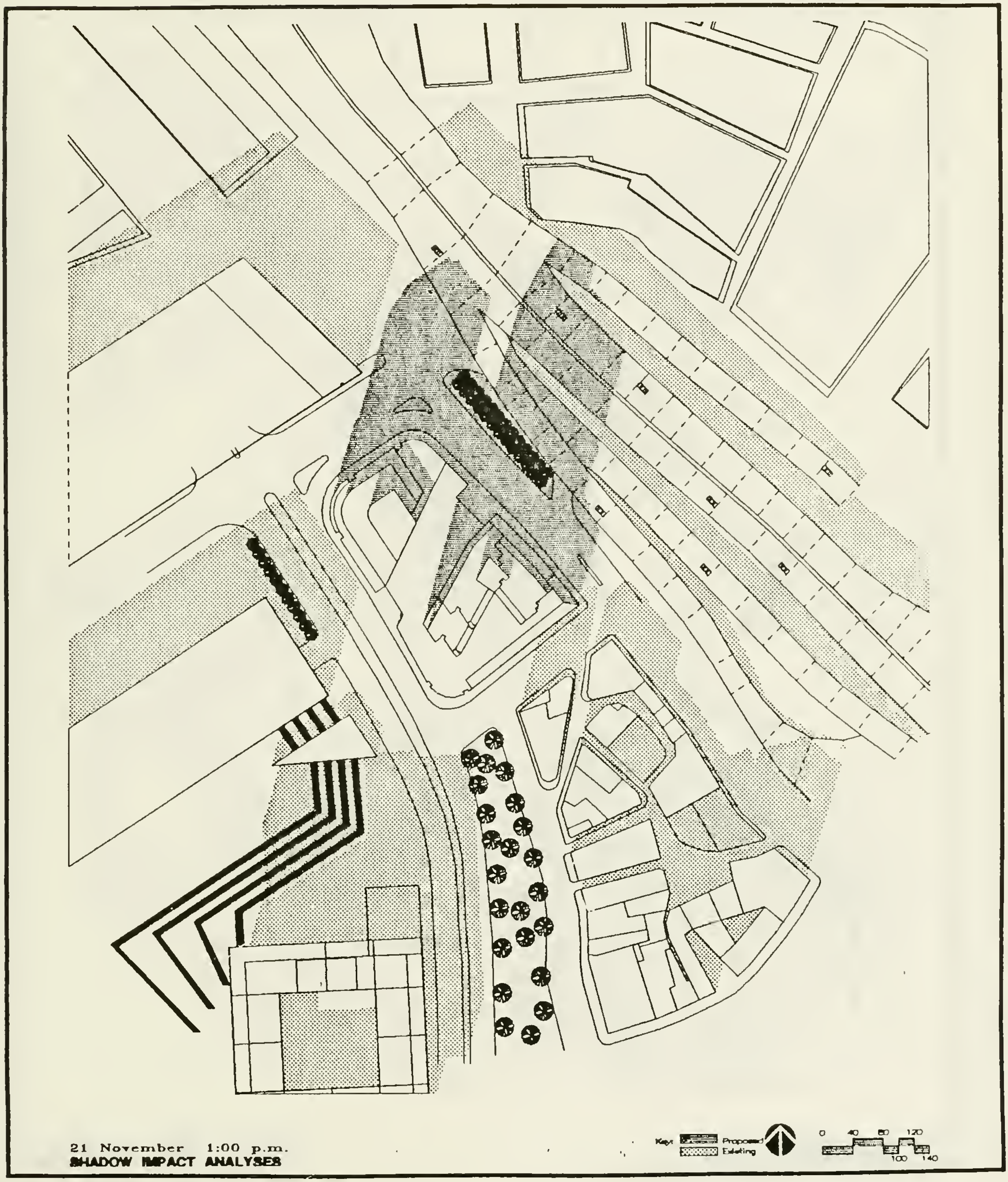
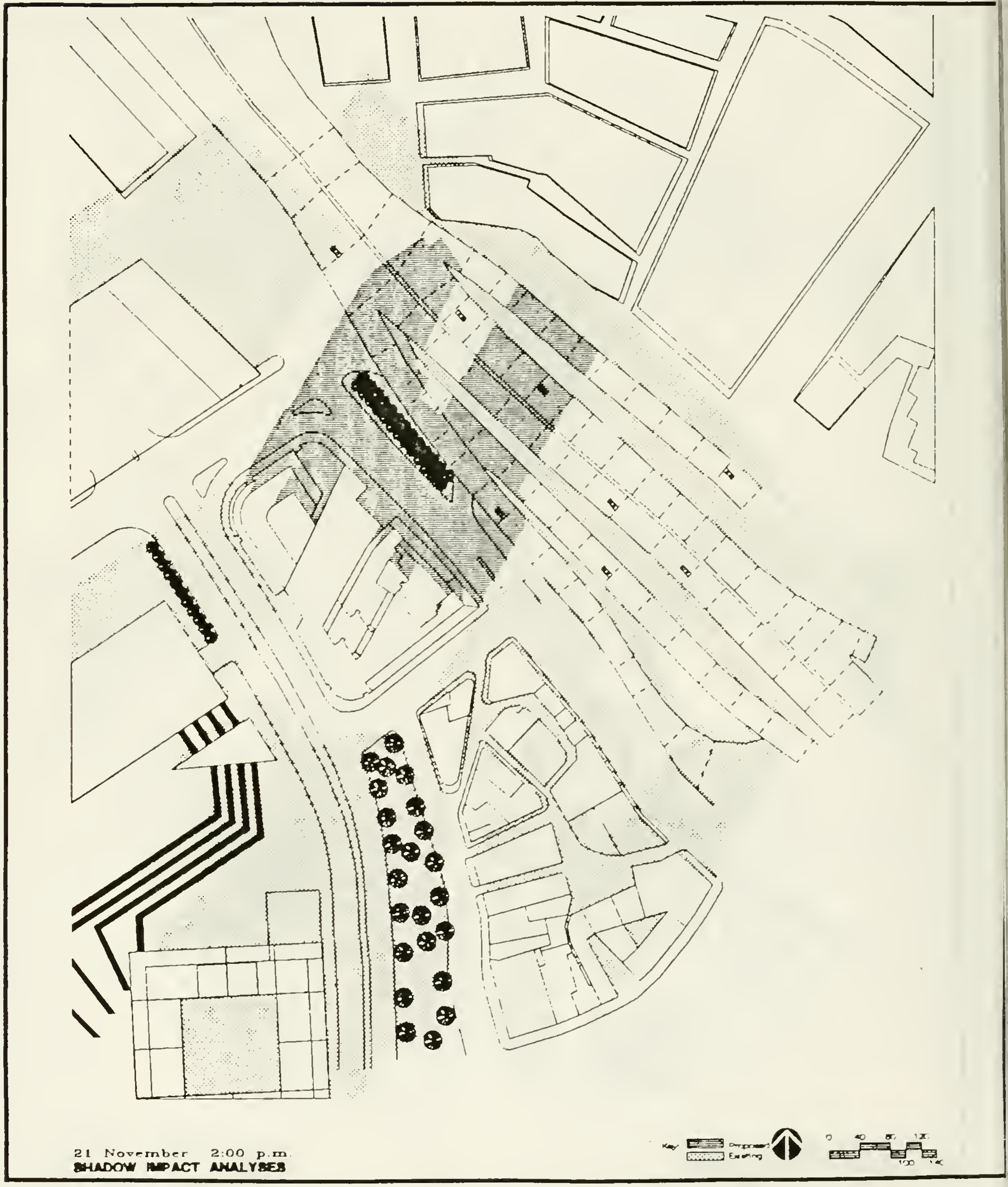


Exhibit IV F-19

Shadow Analysis

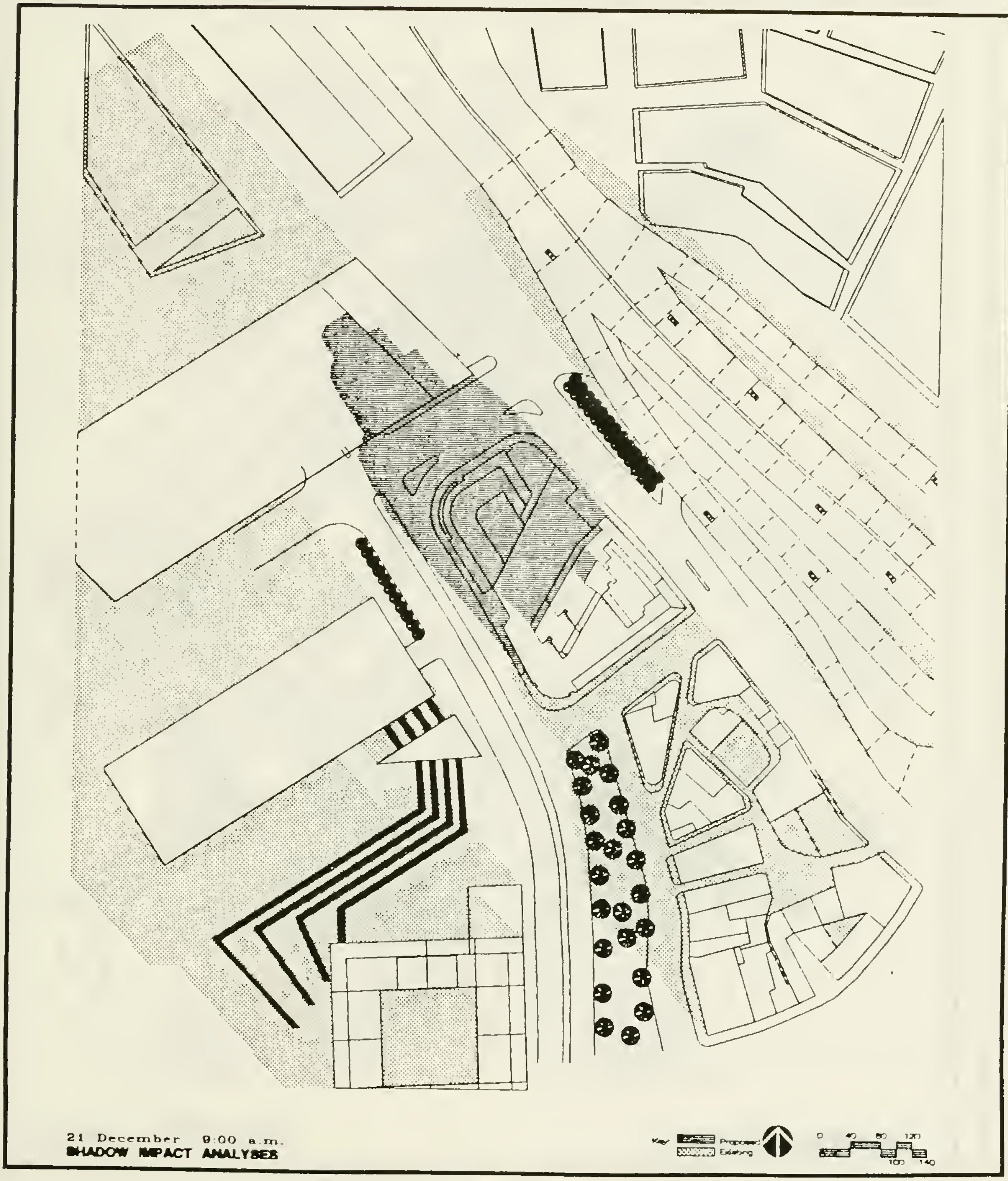


21 November 2:00 p.m.

SHADOW IMPACT ANALYSES

Exhibit IV F-20

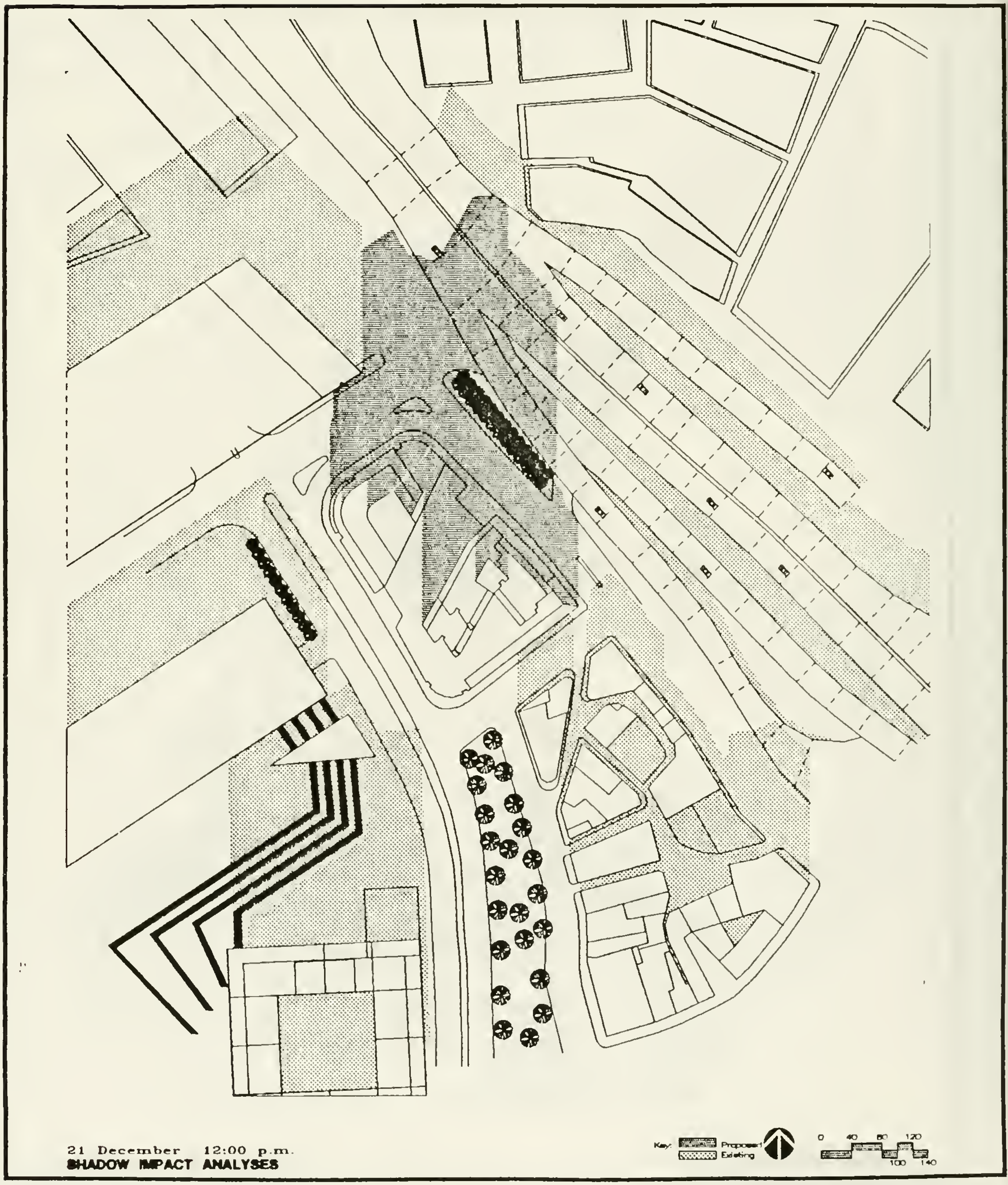
Shadow Analysis



21 December 9:00 a.m.
SHADOW IMPACT ANALYSES

Exhibit IV F-21

Shadow Analysis

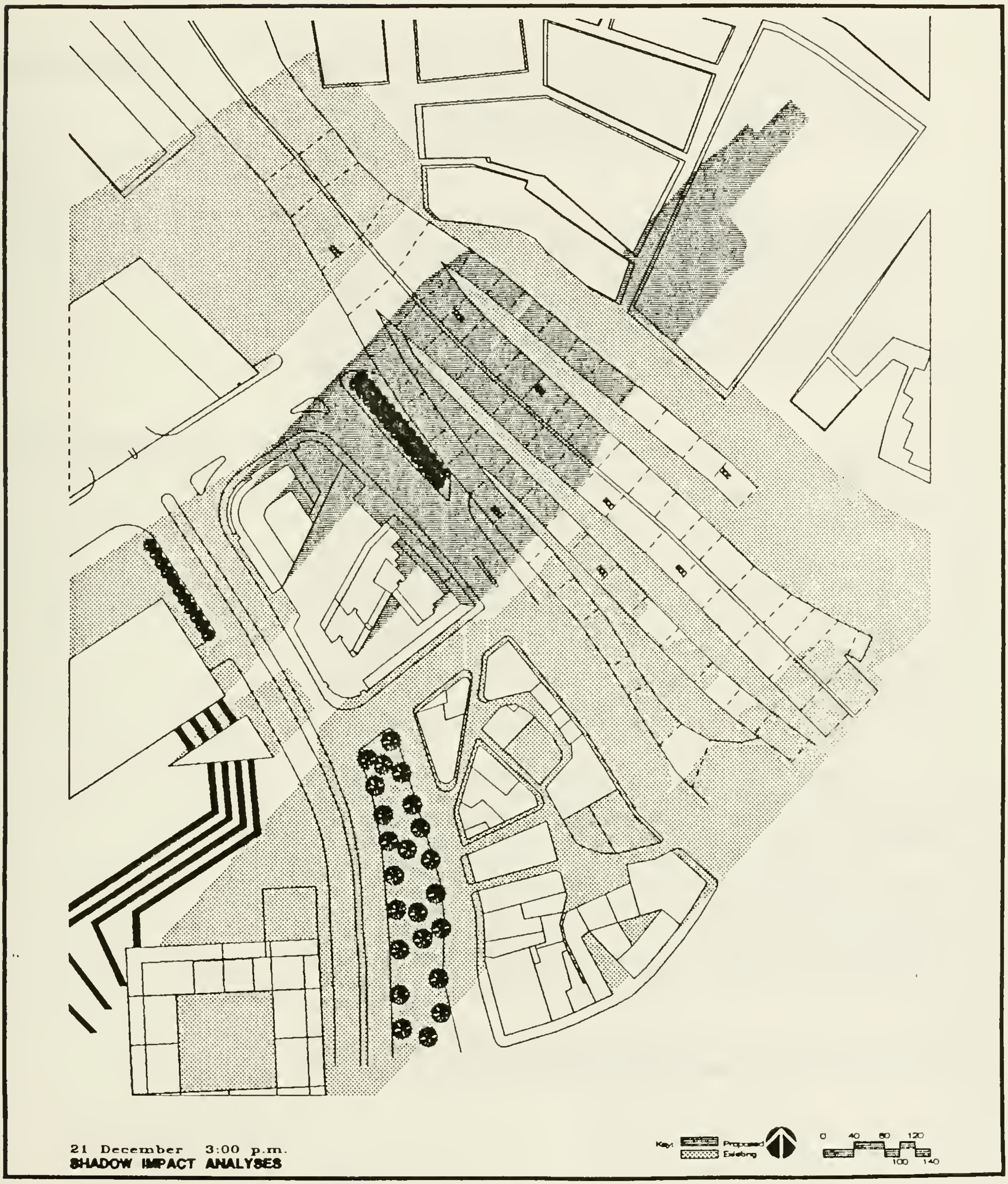


21 December 12:00 p.m.

SHADOW IMPACT ANALYSES

Exhibit IV F-22

Shadow Analysis



21 December 3:00 p.m.
SHADOW IMPACT ANALYSES

IV. G Wind Analysis

INTRODUCTION

In order to predict the impact of the Parcel 7 Development on pedestrian wind conditions in the vicinity of the site, wind tunnel studies were performed. The following analysis is based on the results of the wind-tunnel study which is reproduced in full in the appendix.

The Boston Redevelopment Authority (BRA) has stated in its guidelines that effective wind gusts exceeding 31 mph one percent of the time are not acceptable. The following analysis indicates that ground wind conditions will not exceed this threshold value with the inclusion of some minor architectural features, such as canopies and signage, at the north and south corners of the project.

EXISTING CONDITIONS

In order to predict anticipated ground-level wind conditions, historic wind data records obtained at Logan Airport were utilized. An analysis of this data is presented in the full report attached as an appendix. This data is divided into 16 approach wind sectors and describes the percentage of time for which various wind speeds are exceeded. The data indicate that, on an annual basis, the strongest and most frequent winds approach from the west, with northeasterly to easterly winds also common. These data were used to define winds in an open area, and were combined with wind-tunnel model measurements near the site to predict the wind environment about the site.

The conditions upwind of the project site reflect a partially shielded location. From the northwest through northeast to southeast, the upwind development is characterized by low buildings which do not provide much protection from approaching winds for a tall buildings, but do protect a low project of only a few stories. The Government Center Garage immediately to the northwest may provide some protection from winds, but its open structure at ground level at its east end permits winds from the northwest to sweep through to the site.

For winds from the south and southwest, the site is in the lee of 200 to 400 foot buildings located 400 to 600 feet from the site. These buildings should partially shield the building site from southerly and southwesterly winds.

For westerly winds, some taller buildings may partially deflect winds, but the exposure is mostly open to winds which, on an annual basis, are most frequently from the west.

PROBABLE PROJECT IMPACT

Effective peak gust wind speeds on and near the empty site prior to construction were moderate with maximum values of 23 to 25 mph. Three locations were found within 400 feet of the empty project site which exceeded the BRA guideline of 31 mph. Each of these locations had high wind speeds due to local geometries unrelated to the project site.

Inclusion of the proposed development as originally designed increased wind speeds at three of the four corners of the project (the corner at New Sudbury and New Congress did not increase significantly) with two corners at New Sudbury and Blackstone and at New Congress and Hanover Streets exceeding the BRA guideline of 31 mph. In addition, mid-block locations on New Congress and Blackstone streets increased in speed due to the through-block connection, but they did not exceed the BRA guideline.

Architectural modifications were incorporated at the two locations which exceeded the BRA guidelines. At the corner of New Sudbury and Blackstone Streets, a canopy wrapping around the corner was found to reduce the gust wind from 35 mph to 31 mph fitting within the BRA guideline. This modification has been incorporated into the building design.

At the corner of New Congress and Hanover, additional columns and signage were added which increased slightly the resistance to the wind. Peak gust winds were decreased from 32 mph to 31 mph and thus satisfied the BRA guideline. these modifications have been incorporated in the design.

The largest impact of the Parcel 7 Development on locations away from its immediate vicinity was at a corner of the Government Center Garage where New Congress passes under the garage. The gust wind speed at that location increased from 22 to 27 mph but remained well under the BRA guidelines. The project impact at other sites away from the immediate project base were minimal or non-existent.

MITIGATION MEASURES

The massing of the Parcel 7 Development has been designed to minimize wind impacts. The combination of lowrise and low tower combine to decrease winds about the building base. Use of undercut arcades and canopies have been made to decrease winds on sidewalk areas. Minor changes to the design have been incorporated based on the wind-tunnel tests to assure the ground-level winds about the project site meet the BRA guidelines.

IV. H Haymarket Pushcarts

EXISTING CONDITIONS

Boston's Haymarket consists of an open-aired produce mart where local vendors have been selling fresh vegetables, fruit, fish, meat and cheese for nealy two centuries. Named after the hay scales located in the city's product market during the 18th century, the Haymarket has been in operation in some form since the beginning of the 17th century. The market did not settle at its current Blackstone Street location until about 1850. As both a Boston tradition and a major tourist attraction, it now draws large numbers of downtown and suburban residents, local restauranteurs, area businesspeople and visitors to the city.

The market operates between 8:00 a.m. and 12:00 midnight on Fridays and Saturdays, 52 weeks-a-year. It is located along Blackstone Street and Hanover Street, where an easement has been established by the Massachusetts State Legislature, the Massachusetts Department of Public Works and the Boston City Council.

The market's functions are coordinated by the Haymarket Pushcart Association, whose membership includes nearly all the vendors and stores which operate in the Haymarket. Formed twelve years ago during a period of controversy involving garbage collection, licensing, and towing of illegal parkers, the Pushcart Association has been the primary representative of the market's interests since that time.

More than 250 vendors licensed by the City of Boston health and Hospitals Department participate in the Haymarket each week. Most produce is either purchased at the New England Produce Center in Chelsea, Massachusetts, or at local farms in the Massachusetts area.

Produce is delivered to the market by trucks, most of which are owned by individual vendors. Friday truck parking occurs primarily on local streets and under the Central Artery. On Saturdays, when the market is larger, truck parking occurs on the Parcel 7 site in accordance with an agreement made with the City of Boston during the mid 1970's.

Pushcarts are stored within a fenced-in area under the Central Artery directly north of the pedestrian passage to the North End neighborhood. The City of Boston supplies two garbage collection trucks with drivers which make continuous pick-up and disposal runs during Market operation. Garbage is stored on the median strip along Blackstone Street, and is loaded into the City trucks by personnel hired by the Haymarket Pushcart Association.

PROBABLE PROJECT IMPACTS

Introduction

The Parcel 7 Development project has been designed to respect the pushcart easement, enhance the physical setting and to reinforce the identify and operation of the Haymarket. Through contact with the Pushcart Association, a range of prioritized concerns have been identified. The Parcel 7 design complements the pushcart activities in terms of vehicular circulation, creation of a pedestrian-oriented streetscape and planned public and vendor amenities (see Exhibit IV H-1).

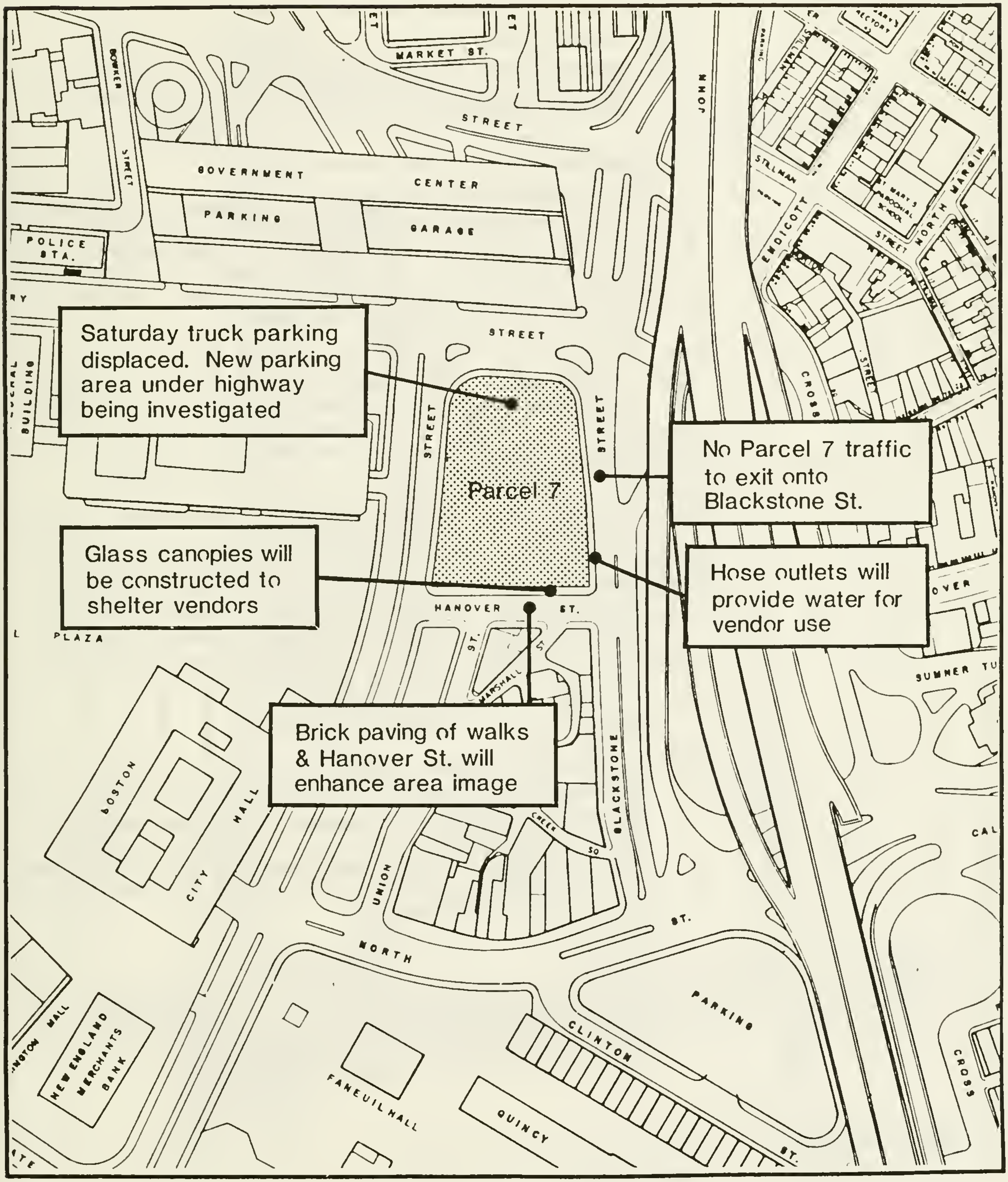
Streetscape Design

In the Parcel 7 complex, the hotel tower is positioned away from the pushcart area, with building height along Hanover Street near the Haymarket limited to 48 feet. As a result, pushcarts are never located below a large building mass incompatible with the area's pedestrian-scale activities.

The development enhances the pedestrian environment of the Haymarket with a variety of design elements along Hanover Street and New Congress Street. These include a glass canopy on both streets which will protect the vendors during inclement weather. Coupled with the canopies are a series of small retail establishments to enliven the streetscape with color and activity. Public and vendor improvements such as brick and granite pavement, landscaping, provision of hose bibs, granite paving of Hanover Street and the elimination of through traffic on market days will strengthen the area's pedestrian image and improve vendor operations. Another aspect of the project design which complements

Exhibit IV H-1

Haymarket Pushcart Area Improvements



Saturday truck parking displaced. New parking area under highway being investigated

No Parcel 7 traffic to exit onto Blackstone St.

Glass canopies will be constructed to shelter vendors

Hose outlets will provide water for vendor use

Brick paving of walks & Hanover St. will enhance area image pushcart activities is the location of the hotel's second floor restaurant, midblock on Hanover Street. This location creates added interest in the market without conflicting with vendor activities.

Circulation

The project's entrance has been designed to eliminate access and egress from or to Blackstone Street during market operations. This has been accomplished by providing right-in, right-out movements to the covered entry street between the office and hotel from new Congress Street (see Exhibit IV H-2).

In addition, the project's use of three internal loading docks on Blackstone Street allows for service and delivery activities associated with the hotel and office buildings to occur behind roll-down doors and without interfering with the pushcarts, which are generally located further toward Hanover Street.

Haymarket-related truck parking which currently occurs on Parcel 7 on Saturdays is not feasible within the below grade parking structure. In addition to the creation of vending inefficiency, the truck turning movements and headroom requirements cannot be accommodated within this restricted site's configuration. As is the case on Fridays, the truck parking will be accommodated beneath the Central Artery.

Wind

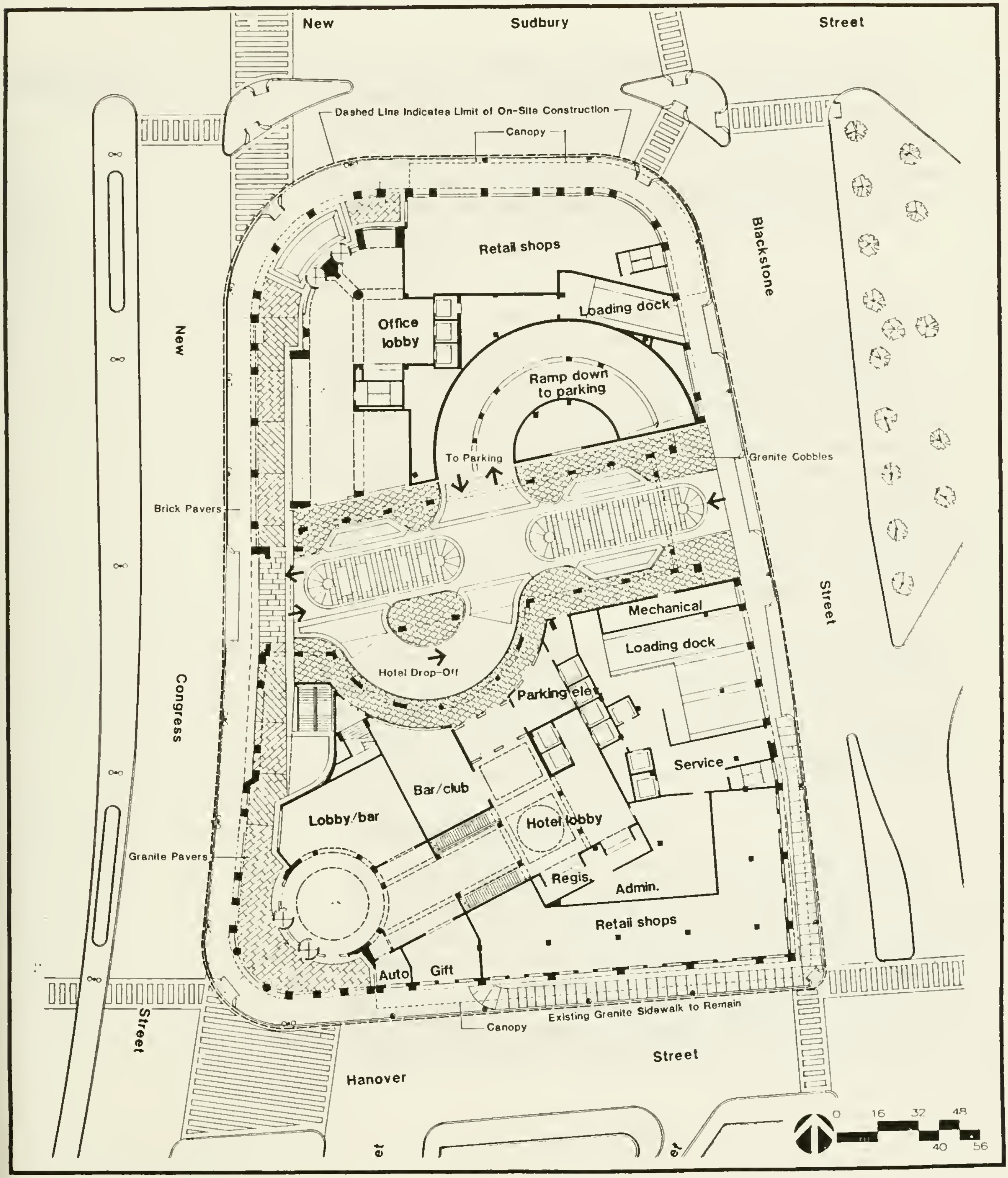
Wind tunnel analyses indicate that winds resultant from the Parcel 7 project in the Haymarket area will increase slightly but will not exceed the BRA guideline of 31 mph more than 1 percent of the time. Incorporation into the design of pedestrian canopies and arcades in the Haymarket area were a result of the wind testing (see Section IV, Chapter G).

Shadow

The Haymarket Pushcart area will experience shadow effects from proposed development only within the area of Blackstone Street north of Hanover Street to New Sudbury Street (see Section IV, Chapter F).

Exhibit IV H-2

Ground Floor Plan



IV. I Archaeology

INTRODUCTION

This report presents the results of an archaeological investigation of a proposed hotel and office complex on Parcel 7, in downtown Boston, Massachusetts. The study was conducted by Boston University's Office of Public Archaeology. The purpose of the archaeological investigation was to identify significant cultural resources that might be buried beneath the surface of the property, and to evaluate the impact of the proposed construction for the project on identified cultural resources.

Parcel 7 is located in the Government Center area of Boston (See Figure 1). The property is bounded by Blackstone, Hanover, New Congress, and New Sudbury streets (see Figure 2). The site is the last major undeveloped parcel in the city's Government Center urban renewal project, which was initiated in 1960 and included the construction of Government Center and other buildings under the aegis of the Boston Redevelopment Authority (Whitehill 1968: 202-208). Today the Parcel 7 property is an open lot used as a parking area for city employees; this lot was created during the early 1960s when the 19th-century brick buildings that covered the parcel at that time were razed.

The hotel and office building complex currently proposed for the parcel will consist of a mix of office, hotel, parking, and retail space. Construction of the proposed development will effectively impact all portions of Parcel 7; for the purposes of the archaeological investigation, therefore, the entire property was considered to be the impact area or project area.

Archaeological Survey Methods

The archaeological study consisted of documentary research, a study of existing surface and subsurface conditions on the property, a limited program of subsurface testing, and analysis of the findings. The documentary research was conducted by Nancy Seasholes in 1984. This research involved an intensive study of the historical development and land use of the project area. Primary sources consulted for the project included the Boston Town Records, the Book of Possessions, Suffolk Deeds, tax and census records, city directories, assessor's records, and a variety of cartographic sources, including historical maps, atlases, and insurance plans. Other sources consulted during the research phase of the project included a variety of sources, such as Boston Histories and manuscript compilations.

The investigation of present conditions on the Parcel 7 property was conducted in order to evaluate the nature and extent of prior disturbances, excavations, and alterations to the site. This information was critical to the assessment of the survivability of archaeological resources within the project area. The documentation of existing conditions relied on several sources, including the records of the Boston Transit Commission (for the construction impacts of the Green and orange Lines) and the Boston Redevelopment Authority, utilities maps furnished by Dig-Safe, and the results of two soil boring programs conducted on the site (Report on Soils 1967; Preliminary Geotechnical Report 1986).

Based on the results of the historical research and the study of existing conditions, a limited program of machine-assisted subsurface testing was conducted on the site in order to test for the presence of potentially significant cultural resources. Following the testing phase, the results of the survey were analyzed, and recommendations were generated for the project.

Although the initial research for the archaeological investigation of Parcel 7 was conducted in 1984, additional work on the archaeological project did not resume until October, 1986 due to delays in the overall development project.

HISTORICAL DEVELOPMENT OF PARCEL 7

Parcel 7 is located in the Government Center area of Boston and is now bounded by Blckstone, New Congress, and New Sudbury Streets (see Figure 2). The latter two streets have only existed since the 1960s, however, when the area was the focus of an urban renewal project. Historically, Parcel 7 is comprised of parts of two blocks, one bounded by Blackstone, Hanover, and Union streets and the other by Union, Hanover, and, after it was laid out in 1872, Washington Street.

Subway Construction Impacts

Not only is the present street pattern different from what it was historically, but sections of the parcel have been so disturbed by past excavations that there is little probability that any remains survive from the historical period. The sections of the greatest disturbance are those containing the tracks of the Green and Orange transit lines. When the section of the Green Line from Hanover Street to Haymarket Square was built under Washington Street in 1897, the annual report noted that the excavation for the side walls extended "almost to the foundation wall of the buildings on each side of the street" (Boston Transit Commission 1897:57) and was generally 19 feet deep (Boston Transit Commission 1897:58; see Figure 3). This depth would seem to preclude the survival of any archaeological remains from the historical period; this supposition is confirmed by contemporary reports that stated that yellow clay subsoil was reached throughout most of the excavation (see Figure 4). In Haymarket Square, peat was encountered 12 feet below surface, and remains of the Middlesex Canal and of two wood box sewers were found above the peat (Boston Transit Commission 1897:60).

But Parcel 7 contains very little of the former Washington Street and thus of the Green Line; a much more significant impact is that of what is known as the Washington Street Tunnel, which contains the Orange Line tracks. This section of subway, from Hanover Street to Haymarket Square, was built in 1906-1907 and, according to the official report, is "almost wholly under the buildings between Washington and Union streets" (Boston Transit Commission 1906:33). As shown in a plate from this report, this section was built under the basements of these buildings in an excavation that appears to extend to about 40 feet below ground level (see Figure 5). This excavation was presumably in sterile soil, as indicated that below the cellar floors the digging was through stiff blue clay" (Boston Transit Commission 1906:33). The tunnel was built about 40 feet from the east wall of the Green Line throughout (Boston Transit Commission 1907:35) and, in addition, the entrance to the Haymarket station, originally under the lot between 30 Washington Street and 90 Union Street (see Figure 5), is part of this parcel.

The extent of disturbance from the construction of subway tunnels and entrances is shown in Figure 6, which is a plan of the project area made by the Boston Redevelopment Authority when the buildings on Parcel 7 were razed in the 1960s. From this plan it is clear that, of all the lots in the block formerly bounded by Washington, Union, and Hanover streets, only a few lots along Union Street probably are worth examining archaeologically. In the block originally bounded by Union, Blackstone, and Hanover, however, all the lots in the project area escaped disturbance from subway construction. Thus, the historical discussion of Parcel 7 will focus on the area once bounded by Union, Blackstone, and Hanover streets and on a few lots on the other side of Union Street in the block formerly bounded by Union, Hanover, and Washington (see Figure 6).

Early History

Most of these two historic blocks are on land that was part of the original Shawmut peninsula. Specifically, this land was part of the neck connecting the North End with the rest of Boston and was one of the parts first settled in the 1630s and 1640s (see Figure 7). In the 17th and 18th centuries this neck was cut by a mill stream, called Mill Creek, that ran from the cove near the town dock to a mill pond cove and served to power a grist mill on the shore of the latter cove (see Figure 8). Early property holdings in Boston have been mapped by Samuel C. Clough and, according to his research, by

1648 the land between what is now Parcel 7, was owned by Bartholomew Cheever and John Davis (see Figure 8). These lots presumably each had a house, as shown on Clough's reconstructed map; Davis' property, for example, is recorded as having "one house and garden" (Bowditch 1933:45).

By 1676, as Cough's reconstruction shows, these lots had been divided and more houses were built on them (see Figure 9). By this time, too, more of the historic streets had been laid out: Union Street had been put through as the "street from the dock to the mill" and what later became Link Alley and the North Federal Court was called the "back lane to Mill Creek".

Block Bounded by Blackstone, Hanover, and Union Streets

At this point it is appropriate to shift from considering development of the parcel as a whole to that of separate lots. The first lots to be examined are in the block formerly bounded by Blackstone, Hanover, and Union streets, and are all the lots comprised in the parcel labeled "Heirs of John Raynor" on 19th-century atlas maps (e.g., Figure 14). This was the land owned by Eyre in 1676 and probably also includes that owned by Knight and Haile (See Figure 9). Eyre acquired the land in 1653, at which time it apparently had a house (Bowditch 1833:45). The lots then changed hands a number of times in the 17th century until they were acquired in 1714 by Daniel Johnoot, a distiller. It was apparently after this date that a distillery was built on the property, for in 1731, when Johnoot sold the lots to Lately Gee, the deed mentions a "certain distill house and the land on which it stands" (Bowditch 1833:47). The distillery building may be the large structure standing by itself within the project area on the Bonner map (see Figure 10).

This distillery continued to exist throughout the 18th century and became increasingly elaborate; a 1791 deed for sale to a Samuel Sloan Jr. mentions a "brick distill house and a shed thereon with two sills and two worms" and also a second lot bounded southwest on Link Alley with a barn and mill and well with "curve pumps" and the right to repair the "trunks or spouts which run from said pumps through said barn to the distill house"

(Bowditch 1833:48). In the Direct Tax of 1798, the distillery, then owned by Samuel Cary, was described as a still house of 1,800 square feet, the mill as a wood house of 720 square feet, and the whole lot as having 3,920 square feet (Boston Record commissioners 1890: 27). The distillery was sold in 1801 to the Tufts brothers; an 1812 deed mentions a drain on the northwest side of the property for draining the distillery into Mill Creek (Bowditch 1833:56). Hales' map of 1814 is somewhat inconclusive about the buildings on the distillery lots and shows none of them as being of brick (see Figure 11), so perhaps this is an instance where the Hales map has generalized about the buildings in an area rather than showing each individual structure as it actually existed.

The Tufts brothers owned the distillery until 1833, when the land was sold to John Raynor, a coachmaker. At that time the deeds mention the well with the curve pumps, the drain, and the right to a hand pump and a "necessary" in common along with the obligation to keep all in repair and to change the location of the necessary if so desired (Bowditch 1833:52). A plan drawn up at the time shows the location of the necessary and well and also another well held in common; the distillery was apparently in the large lot above the necessary.

After Raynor's purchase of the property it apparently no longer functioned as a distillery. The 1852 Slatter and Callan map shows a series of buildings on the site (see Figure 12), and the 1867 and 1874 Sanborn atlases indicates that these were two- and three-story frame buildings that housed a "baby wagon" factory (see Figures 13A, 14). By 1885 these had been replaced by four-, five-, and six-story brick buildings, most with shops on the first floor and picture framing, paints, and oils, and furniture finishing and upholstering on the upper floors (see Figure 15). These buildings functioned in essentially the same way in 1895 (see Figure 16), but by 1929, many of these buildings were occupied by a grocer and a candy factory (see Figure 17), reflecting a change in this neighborhood from furnishing-related industries in the late 19th century to wholesale food in the twentieth.

The history of the lots at the end of the Raynor property south of the passageway reflected many of the developments already mentioned in connection with the distillery lots. The deeds for these lots are notable for their many references to rights in the common passage, well, and necessary, the latter often including the right to move it or sometimes the obligation to empty it (Suffolk Deeds 305:222). The lots at the north end of the Raynor property were on land that was originally part of the Mill Pond (see Figure 7). The Mill Pond was filled at the beginning of the 19th century and these lots, because they were close to the shore, were completed by 1811, the year they were sold. As in many of the sales by the Boston Mill Corporation, the developers, dwelling houses were required to be of brick or stone and at least three stories high but, as will be noted below, not all buildings subsequently constructed on these lots conformed to this restriction.

Most of the lots along Blackstone Street in this block were truncated when Blackstone Street was laid out. With the filling of the Mill Pond, the Mill Creek served no further function and so it, too, was filled. Hales' map of 1814 indicates that in that year it was covered with wood (see Figure 11), and by 1824 Blackstone Street had been laid out on the course of the former stream. This original laying out of Blackstone Street and/or its subsequent widening in 1833 presumably destroyed most of the wood houses listed in the Direct Tax of 1798 as being along Mill Creek, although these are not shown on the Hales map of 1814 (see Figure 11). The 1852 Slatter and Callan map shows a row of buildings along Blackstone Street (see Figure 12), and the 1867 Sanborn map indicates that these were a mixture of three-, four-, and five-story brick and stone buildings of which one was used as a tin ware factory (see Figure 13A). Figure 19 shows many of these buildings as they appeared in the 1930s. The buildings along Blackstone Street at the north end of the block were on the filled land formerly the Mill Pond and, contrary to the deed that had required brick or stone buildings at least three stories high, were two- and three-story frame buildings that extended from Blackstone Street through to Union and have already been discussed in the latter context. The 1885 Sanborn map indicates that the buildings at the south end of the block were occupied by japaning and sheet iron works in addition to the tin ware factory (see Figure 15), and the 1895 Sanborn suggests that these operations took place on the upper floors of buildings that had shops on the street level (see Figure 16). In 1929 these shops still existed and one of the buildings was occupied by a macaroni factory (see Figure 17), a change consistent with the transformation in the 20th century of this neighborhood to one of food-related industries and establishments.

The lots along Hanover Street had a history very similar to others on the Hanover/Union/Blackstone streets block. This land had been owned in 1648 by Bartholomew Cheever (see Figure 8) and further subdivided in 1676 (see Figure 9). These lots apparently had wooden dwellings throughout most of the 18th century (e.g., Figure 10); the lot on the corner of Union and Hanover streets, for example, contained in 1798 a substantial three-story wood house that occupied 830 square feet of a 970 square foot lot. Thus, the single long building running from Union to Blackstone streets shown on the Hales 1814 map is again probably a generalization of several separate buildings that actually existed (see Figure 11). In the early 19th century, some changes were apparently made to the buildings in the area; for example, an 1823 agreement between Anthony Chapouil, the owner of the middle lot (see, e.g., Figure 14) and an abutter on the east referred to their plans to pull down old buildings and erect new ones (Suffolk Deeds 284:32). The Slatter and Callan map of 1852 shows Union Street lines with buildings (see Figure 12), but again this may not be entirely accurate because the major changes in that area only occurred after 1857. In that year North Federal Court, the diagonal street from Union to Blackstone that had existed since the 17th century and from 1708 to 1806 as Link Alley, was closed, the land that formerly comprised it divided, and the entire parcel built upon. The results are apparent on the 1867 Sanborn map (see Figure 13A), which shows a five-story brick building on the corner of Union and Hanover streets occupied by a picture frame factory and a paint and oil concern; a three-story brick building on the middle lot occupied by a shoe dealer; and a three-story brick building on the corner of Hanover and Blackstone containing a candy factory and a feather dealer. An 1872 receipt from G.A. Sammet, one of the occupants of this building, indicates that the structure itself was actually four stories with a mansard roof and that the feather dealer also manufactured mattresses and other items of bedding (see Figure 18). By 1885 the middle lot also contained a bed factory and what was presumably an oil processor was the main occupant of the building at the corner of Hanover and Union (see Figure 15). Another change had occurred by 1895 when the latter building was occupied by printers and tailors (see Figure 16), and by 1929 yet another transformation had taken place and a grocer was in the building at the corner of Blackstone (see Figure 17). This development is clear in a photo probably taken in the 1930s showing E.E. Gray in the corner building which, by this date, had had its mansard roof removed (see Figure 19). The photo also gives a good view of the neighboring brick buildings stretching down Blackstone Street.

Block Bounded by Union, Hanover, and Washington Streets

On the block bounded historically by Union, Hanover, and Washington streets, there are many fewer lots with archaeological potential. The large lot on the corner of Hanover and Union was owned in 1648 by John Davis, a tailor who, according to the Book of Possessions, had a house and garden (Bowditch 1828:128; see Figure 8). This property passed through many hands during the 17th century; in 1676 it was owned by John Howlett, and it was invariably described in inventories as being comprised of a house and land (Bowditch 1828:129). In the early 18th century this house apparently functioned as a tavern known as the Star Tavern, but it evidently was not used as such for very long, for a 1737 reference to the building describes it as "formerly the Star Tavern" (Thwing 1930:89). During the first half of the 18th century, the property was owned by a John Borland and was eventually acquired in 1764 by a William Frobisher, who still owned it in 1798. At that time the lot was described as containing 6,372 square feet of land, of which 1,359 square feet were occupied by the former tavern -- a two-story wood house with 28 windows. In 1812 the property was acquired by Abram Babcock who, in turn, sold it in 1828 to the deacons of the First Baptist Church; in 1829 a brick church was built on the lot (see Figure 20). This church, shown on the Slatter and Callan map of 1852 (see Figure 12), continued to occupy the site until 1858, when the congregation moved to a new building in the West End and the former church building was apparently taken down; the 1867 Sanborn atlas shows a series of three-story stone buildings on the site (see Figure 13B). In 1874 the building that henceforth became associated with the site - the Blackstone Bank building -- was built (see Figure 14). This four-story stone-faced brick building ran through from Hanover to Washington Street and, as shown in a 1905 photo, sometimes housed establishments other than a bank (see Figure 21).

The lot immediately north of the former bank building is even more significant historically, for it was here that the famous Green Dragon Tavern was located. This lot was part of the land owned in 1648 by John Davis (see Figure 8) and in 1676 by William Stoughton (see Figure 9), the Lieutenant Governor of the colony from 1692 to 1701. The brick building that became the tavern was apparently built during Stoughton's ownership and was functioning as a tavern in the 1690s (Porter 1887:96), a date confirmed by a 1704 reference in the deeds to a "brick messuage called the Green Dragon Tavern" (Bowditch 1827:115). Old drawings show a six-bay long, two-and-a-half story high brick structure with large end chimneys and early Georgian details (see Figure 22). In 1743 Stoughton's heirs sold the tavern to William Douglass, and his heirs, in turn, sold it in 1765 to St. Andrew's Lodge of Free Masons (Thwing 1930:188). The tavern was noted as a meeting place for patriots before the Revolution as well as a place where Freemasons held services. After the Revolution it was used for social and literary gatherings, but in 1828 it was taken down in order to accommodate the widening of Union Street (Porter 1887:96). The widening of Union Street apparently destroyed the front 22 feet of a building that was described as being 34 feet deep, 50 feet long, two-and-a-half stories in front, and three stories plus a basement in back. The property was also included in a large wing at the rear and a stable (Porter 1887:95- 96). In the later 19th century a brick building was erected on the site and was occupied in 1867 by a trunk factory (see Figure

13B), in 1895 by an upholstery concern (see Figure 16), and in 1929 by a tin shop (see Figure 17). This building also had a plaque on its facade marking the site of the former tavern.

The last set of lots on the Union/Hanover/Washington block that escaped disturbance from the subway construction are those immediately north of the Green Dragon lot. Hales' map of 1814 indicates only one building north of the Green Dragon (see Figure 11) and, although there were 18th-century houses, a bake house, and a pump in the area (Bowditch 1827:110), deed research indicates that the small lots shown on late 19th-century maps were not laid out and built on until after 1829 (Bowditch 1827:112). After that date a series of three-story brick buildings were erected, most with shops on the ground floor and various manufacturers on the upper floors. Sanborn atlases for 1885 and 1895 (see Figures 15, 16) indicate printing, oils, and mattress-making establishments in these buildings. Much of the archaelogical evidence may have been destroyed in 1906-07, however, when the entrance to the Haymarket subway station was built (see Figure 6).

FIELD INVESTIGATIONS

Existing Conditions

Parcel 7 is an open lot containing 58,587 square feet; the property is currently used as a parking area for city employees (see Figures 2, 23). The lot is generally bounded by curbing and sidewalks on all sides. The interior portion of the lot is an open, dirt-covered surface except in certain areas, where patches of bituminous concrete paving are in evidence. The easternmost portion of Union Street, a road that was in existence from the 17th century until it was abandoned in the 1960s, is still visible on the property (see Figure 2); this road is currently used for access into the parking lot. Apart from the curbing along the former Union Street and the other streets that surround Parcel 7, the only features visible on the surface of the property are the M.B.T.A. Haymarket Station subway entrance, built in the mid-1970s (see Figure 2), and a small structure in the southwest corner of the parcel, used by the parking lot attendant.

Information relating to existing subsurface conditions at the site is available from several sources. The general configuration of the soils underlying the site has been known since the late 19th and early 20th centuries, when construction for the Green Line and Orange Line subway tunnels under Washington Street and the southern portion of the project area revealed the nature of the soil strata at the site (see, e.g., Figures 3 through 6). More recently, two programs of soil borings conducted on the property have produced a relatively complete profile of subsurface conditions at Parcel 7 (Report on Soils 1967; Geotechnical Report 1986).

The data produced from these studies indicate the presence of a layer of "miscellaneous fill", consisting of mixed sand, gravel, stone, and brick, extending from the surface of the property to a depth of 9-10 feet. This depth is generally uniform throughout the parcel, with the exception of the westernmost portion of the property (near New Sudbury Street), where the fill layer extends to 15-17 feet below the surface. this portion of the property was originally located within the Mill Pond until it was filled during the early 19th century (see, e.g., Figures 7 through 10). Underlying the fill layer is a stratum of yellow, brown, or gray clay. This clay, often referred to as "Boston blue clay", varies in color from yellow in its upper oxidized levels, to a greenish gray, and even bluish tint where it is unoxidized (Kaye 1976:59). the "blue clay" is commonly encountered as subsoil at archaeological sites throughout the Boston area (e.g., Beaudry 1984: 18-19).

The thick upper layer of "miscellaneous fill" represents the debris associated with the demolition of the 19th-century buildings that existed on the Parcel 7 property. As the historical section of this report demonstrates, from about the middle of the 19th century until the 1960s, all the lots on the parcel were occupied by substantial brick buildings three to six stories in height, with basements (see, e.g., Figures 12, 14 through 19, 21). A plan of the property made for the Boston redevelopment Authority at the time of the razing of these structures in the 1960s shows that the basement floors were located between 6.5 and 8.8 feet below the ground surface (see Figure 24). The fill recorded in the soil borings therefore represents the filling of the basements with rubble and debris at the time of the demolition of the structures.

In addition to the information obtained from the above sources, a study of impacts from subsurface utilities was also conducted for the project. Sources consulted included a utilities plan of the property prepared in 1980 (Survey of Parcel 7-1: 1980), information provided by Dig-Safe, a series of maps showing utilities on the property dating back to the late 19th century. These sources indicate the presence of a plethora of current and obsolete utilities located below the streets surrounding the project area, and below the former Union Street. Within Union Street alone, for example, the following utilities are recorded: three electric cable tubes, 6" gas line, 18" gas line, 12" water line, 12" sewer drain, 24" sewer drain, two 6" electric lines, and several manholes. IN general, the interior portions of the project area do not contain subsurface utilities.

Archaeological Testing Program

The historical research indicated that the Parcel 7 property was one of the oldest and most intensively developed areas in the City of Boston. Beginning in the 1640s, the project area was the site of almost uninterrupted development and utilization, beginning with a few residential house lots and culminating in the almost complete coverage of the property with substantial brick commercial, industrial, and residential buildings. While this rich and varied history might suggest that the project area should have a correspondingly high archaeological sensitivity, the study of existing conditions on the property indicated that only a very limited archaeological potential exists on Parcel 7, and that the survival of significant archaeological remains and deposits from the early historical period is highly unlikely.

The principal reason for the low archaeological potential of the Parcel 7 property is the disturbance caused by the construction of basements for the 19th-century buildings that covered the parcel. As noted above, the floors of these basements ranged from 6.5 feet to 8.8 feet below the surface; allowing an additional foot in depth for the thickness of the basement floor and for the prepared surface below it, one can assume that the cellar disturbance throughout the property extends to almost 10 feet in depth. This figure is confirmed by the evidence from the soil borings taken on the site. Because the majority of the Parcel 7 property is located on what was original Boston land, it is very likely that construction of the 19th-century basements destroyed the majority of earlier historical buildings and features on the site. Only very deep features, such as wells, might be expected to survive in truncated form below the level of the 19th-century basement floors. Fill deposits that might contain, for example, 17th-century artifacts, were not expected on the Parcel 7 property, because the only portion of the project area that was originally wet was the westernmost portion, along New Sudbury Street, which was filled in during the 19th century. Thus the possibility of finding significant early fill deposits, such as were found in excavations in the adjacent Blackstone Block (shown in Figure 2), portions of which were originally wet and filled in during the 17th century, was not anticipated at Parcel 7.

The results of the historical research and evaluation of existing conditions were presented to the State Archaeologist (Massachusetts Historical Commission) and the Archaeologist for the City of Boston (Boston Landmarks Commission) in September, 1984. At that meeting, it was determined that a limited program of subsurface archaeological testing be conducted at Parcel 7 to investigate the possibility that undisturbed archaeological depostis of the early historical period were located below the level of the 19th-century basement floors. Two to three machine-assisted test pits were recommended in portions of the property where the basements were relatively shallow.

Based on a consideration of the historical development of the parcel, and of existing conditions on the property, test trenches were selected for excavation in three areas (see Figure 24). Each trench was to measure 6 by 10 feet, and was to be excavated to a point below the level of the basement floor to test for the survival of archaeological deposits. The rationale for selecting these specific areas for testing, as well as the archaeological expectations for each unit, are briefly described below.

Trench 1: The first excavation unit was to be located within the former lot at the corner of Blackstone and Hanover streets. The brick structure that stood here during the 19th century had a relatively shallow basement (6.6 feet below surface). The appearance of the building is shown in Figures 18 and 19. This lot faced onto an alley that was an open path (Federal Court) from the 17th century until sometime after the middle fo the 19th century (see Figure 12). Land on either side of this alley was divided into residential lots as early at the 17th century. Undisturbed, early historical features or deposits below the 19th-century basement were considered to have the potential to contribute important information on the early development of this portion of the city.

Trench 2: This excavation unit was originally planned as a supplemental test unit. If archaeological remains were encountered below the basement in Trench 1, it was planned that Trench 2 would be opened up in order to further examine the subsurface remains on the north side of the alley. When the fieldwork began, however, it was determined that Trench 3 would not be excavated due to prior disturbance of that location, and, consequently, Trench 2 was excavated in order to provide more information of the nature of the soil underlying the basement floors. Like Trench 1, Trench 2 was located within a building that had a relatively shallow basement (6.7 feet below surface).

Trench 3: This unit was planned to test for surviving remains associated with the Green Dragon Tavern, the famous historical landmark that was used as a meeting place for Patriot leaders before the American Revolution (see Figure 22). As noted in the historical section of the report, the tavern was removed in 1828 in order to allow for the widening of Union Street. The widening apparently destroyed the front 22 feet of the tavern building, which was 34 feet deep. The building did have, however, a rear wing and a stable.

Because of the presence of a large number of subsurface utilities below the south portion of Union Street, it was determined that the best location for identifying surviving deposits relating to the tavern was below the level of the basement of the 19th-century building that occupied the former Green Dragon Tavern site. Accordingly, Trench 3 was laid out on the 1960s B.R.A site plan east of the subway wall for the Orange Line (see Figure 24). The basement of the 19th-century building on this lot was 7.5 feet below the surface.

When fieldwork for the project began in October, 1986, after a considerable delay, the test trenches were laid out in the field prior to excavation. At that time, it became evident that the location of Trench 3, and the former Green Dragon Tavern lot, were within an area that had been disturbed during the mid-1970s by construction of a new entrance to the M.B.T.A. Haymarket subway tunnel. The configuration of this new entrance was not on the B.R.A site plan showing the basements of the 19th-century buildings, which had been used for layout out the test trenches; the new entrance has been added to Figure 24 to show the extent of the disturbance caused by its construction. As a result of this information, it was determined that Trench 3 should be omitted from the field testing.

Results of Testing

Test trenches 1 and 2 were excavated on october 17, 1986. A Case 580 Backhoe was employed to excavate the test units. The archaeological fieldwork was conducted by the principal investigator and four field assistants. The test trenches were taped off in the field, and marked with spray paint on the ground. Site datums were established in order to facilitate the recording of elevations for the excavation; one datum was set on Blackstone Street, while another was established at the southwest corner of Trench 1.

The excavation plan called for the backhoe removal of the building rubble above the anticipated level of the floor of the 19th-century basements, followed by the careful exploration of the area below the level of the basement. Elevations were recorded by transit, using the temporary site datums established on the site; the elevations presented on the plan for Trench 1 (see Figure 26) give the depth below the surface level (set arbitrarily at 0.00 feet). Field observations were recorded in narrative form in a field notebook; in addition, plan and profile views were recorded for each trench, and color and black-and-white photographs were taken.

Although the primary goal of the testing was to determine whether early historical deposits or features existed below the level of the 19th-century basements, attention was paid to any architectural remains that were encountered in the trenches. Foundations and other features were exposed and recorded, and an attempt was made to explicate the architectural features in light of the historical documentation. Recovery of artifacts was limited to deposits below the level of the basements, although occasional artifacts were encountered in the various fill and rubble deposits excavated above the basements, and were duly noted by field recorders. All soils underlying the level of the basements were screened by field crew in order to test for the presence of cultural material.

The results of the excavation of Trenches 1 and 2 are presented below. The location of these units is shown in Figure 24.

Trench 1

The first excavation unit was located within the former building lot at the corner of Blackstone and Hanover streets (see Figure 23). The initial test unit measured 6 by 10 feet, but the trench was substantially expanded as the soft rubble fill on the side walls frequently collapsed into the trench, causing the top edges of the trench to be undercut. The uppermost layer in Trench 1 was a brown sandy fill layer extending from the surface to a depth of almost 80 cm. this layer, which did not contain the mass of building rubble, encountered in the stratum immediately below it, can be identified as a level of clean fill placed on top of the building rubble to form a level surface for the lot.

Below the leveling layer was a thick deposit of building rubble, consisting of bricks, mortar, stones, and earth, which extended to the top of the basement floor of the 19th-century building (see Figure 25). In the western portion of the trench, a substantial foundation of cut granite blocks was encountered at a depth of slightly over one foot below the surface of the lot (see Figure 26). This foundation, which stood intact down to the bottom of the excavated trench, corresponds to a portion of the west wall foundation of the brick structure built here during the 1860s (see Figures 24, 13A, 18 and 19). A short distance to the east of this foundation, at similar depths from the ground surface, were found the leveled remains of two interior brick piers, evidently used to support the first floor of the building. The outer vertical surfaces of these piers were faced with boards, and in the southwest corner of the trench, the vertical boards were seen to continue from the brick pier to the foundation wall (see Figure 24). These features clearly indicate that the test unit was placed within a portion of a finished cellar or basement.

In the middle portion of the trench, at a depth of about seven feet below the surface of the lot, the backhoe encountered a cement basement floor, a portion of which is shown on the plan in Figure 24. This flooring, which was broken up and removed by the backhoe, appeared to have been poured in three distinct layers, increasingly less coarse from bottom to top. The cellar floor averaged 6-7 inches in thickness.

As excavation proceeded, two parallel brick foundations were uncovered just below the level of the cement floor. The foundation on the north side of the trench was the better preserved of the two. It was six brick courses high, and rested on earth; on top of the uppermost course of bricks was a wooden sill (see exhibit IV I-24). On the south (i.e., interior) face of the wood sill were vertical baords, identical to the ones found on the foundation and the south brick pier. the vertical boards also continued from the brick foundation to the brick pier located in the northwest corner of the trench. Apparently the boards represent the interior panelling of a room or a portion of a room in the basement of the brick structure.

The plan of the uncovered architectural features in Trench 1 indicate that two building phases are represented (see Figure 24). The substantial granite block foundation and the large brick piers apparently belong to the later phase of construction, probably sometime during the 1860s when a number of smaller buildings were combined into the large brick structure on the corner of Blackstone and Hanover streets. This structure first appears on historical maps in 1867 (see Figure 13A). The presence of the two parallel brick foundations, however, and their lack of symmetrical alignment with the granite foundation and the brick piers, suggests the likelihood that these features represent the remains of a portion of an earlier building. The presence of the wood panelling on the north foundation, and its absence on the south foundation, indicate that the north foundation was used as an interior wall of the 1860s building, while the south foundation was not so used. Apparently the wall that rested on the south foundation was removed in the new building, and the cement floor of the building was poured over this foundation and across to the brick foundation and wall on the north side of the trench, where the wood sill provides the general level of the cellar floor.

This interpretation was confirmed by the continued excavation in the center of the trench, below the level of the cement floor, which had been broken up by the backhoe. Two feet below the top of the brick foundations was found a portion of a brick floor on line with the brick foundations (see Figure 24). In addition, between the south brick foundation and the brick flooring was a portion of a terracotta drain. Apparently the brick flooring here formed part of the basement floor of an earlier building here, one that was contemporary with the two brick foundations above it, which, judging from their small size, could only have served as interior wall foundations. Although no artifactual evidence was found in this area, it seems likely that these remains are associated with the pre-1980s building that was on this site, which is probably indicated on the 1852 Slatter and Callan map (see Figure 12).

Following the exposure and recording of these architectural features, the backhoe operator was instructed to break up the exposed brick flooring. All soils excavated from below this level were screened in order to recover any cultural materials that might be present. No artifacts, however, were recovered from below the brick flooring. The soil here proved to be sterile yellow (and occasionally grayish) clay, which is indicated as the typical subsoil on the soil borings for the site. The backhoe excavated slightly less than a meter deep into the yellow caly below the level of the brick flooring. At the bottom of the excavation, at a depth of more than 12 feet below the surface of the lot, the water table was countered, and further excavation was discontinued.

Trench 2

The excavation of Trench 2 proved to be considerably less complex than Trench 1. Unlike Trench 1, no intact architectural features such as foundations, brick piers, and the like were found in Trench 2, which apparently was situated well within the interior of the basement of the 19th-century brick structure that occupied this lot. The only undisturbed feature associated with the former structure was the cellar floor, which was found to be intact.

Figure 24 shows the location of Trench 2; the profile of the west wall of the excavation is presented in Figure 27. As in Trench 1, the uppermost layer consisted of a leveling stratum of brown sandy soil, without building rubble; this stratum measured over 80 cm in depth. Below this layer was the anticipated thick stratum of demolition rubble, consisting of a mixture of brick, fragments, mortar, stone, and cut stone, that was used to fill up the basements of the buildings on the site when they were razed. The rubble level in Trench 2 measured over 1.30 m in depth.

At a depth of 2.20 meters below the surface of the lot, the backhoe encountered the cellar floor of the 19th-century building. This floor, which consisted of a 4"-6" thick granite paving, was intact throughout the trench. After considerable difficulty, the backhoe succeeded in breaking through the cellar floor, and excavated below it into the yellow clay subsoil. No cultural materials were found within the yellow clay subsoil, which was excavated to a depth of between 0.65 m - 1.0 m below the cellar floor before work in the trench was halted.

CONCLUSIONS AND RECOMMENDATIONS

The archaeological survey of the proposed Parcel 7 development in Boston included documentary research, an evaluation of existing conditions on the site, and limited archaeological testing. The historical research demonstrated that most of what is now Parcel 7 is located on original Boston land that was settled as early as the 1640s. Intensive and continuous occupation of the property was documented throughout the historical period until the 1960s when the existing buildings on the parcel were razed and the parcel became an open lot awaiting development under an urban renewal project. The research also documented the evolving use of the parcel beginning with a small number of individual house-and-garden residential lots in the 17th century, to a mixed residential/commerical/ light industrial use in the 18th and 19th centuries.

Despite the long and intensive use of the project area throughout the historical period, a study of disturbances and existing surface and sursurface conditions on the Parcel 7 property indicated that few, if any, early historical remains have survived on the site, and that the archaeological potential of the parcel in general must be considered very low. A realtively complete picture of the subsurface soil conditions was available as a result of prior subway construction in the southern portion of the property, and from two recent soil boring studies undertaken in conjunction with proposed development on the parcel. In addition, specific information was available on the extent and depth of the basements of the 19th-century structures that covered the parcel in its last phase of historical development, and a complete series of utilities maps for the property provided detailed information on the nature and extent of disturbance from subsurface utilities.

Ultimately, it was the intensive construction of substantial brick buildings during the mid to late 19th century that was responsible for eliminating the likelihood that significant, undisturbed archaeological deposits of the early historical period survive on the Parcel 7 property. These structures effectively covered the entire property by the 1860s, and reduced the subsurface configuration of the parcel to a continuous series of basements, disturbing or destroying any earlier features down to a depth of about 10 feet. This conclusion is confirmed by the relatively complete series of soil borings taken on the property, and by the limited archaeological testing, which revealed the presence of sterile clay subsoil immediately below the level of the 19-century basement floors.

Based on the evidence gathered during the archaeological investigation, and presented above, it is concluded that no significant archaeological resources survive on the Parcel 7 property. It is therefore recommended that no additional archaeological work be required for the project.

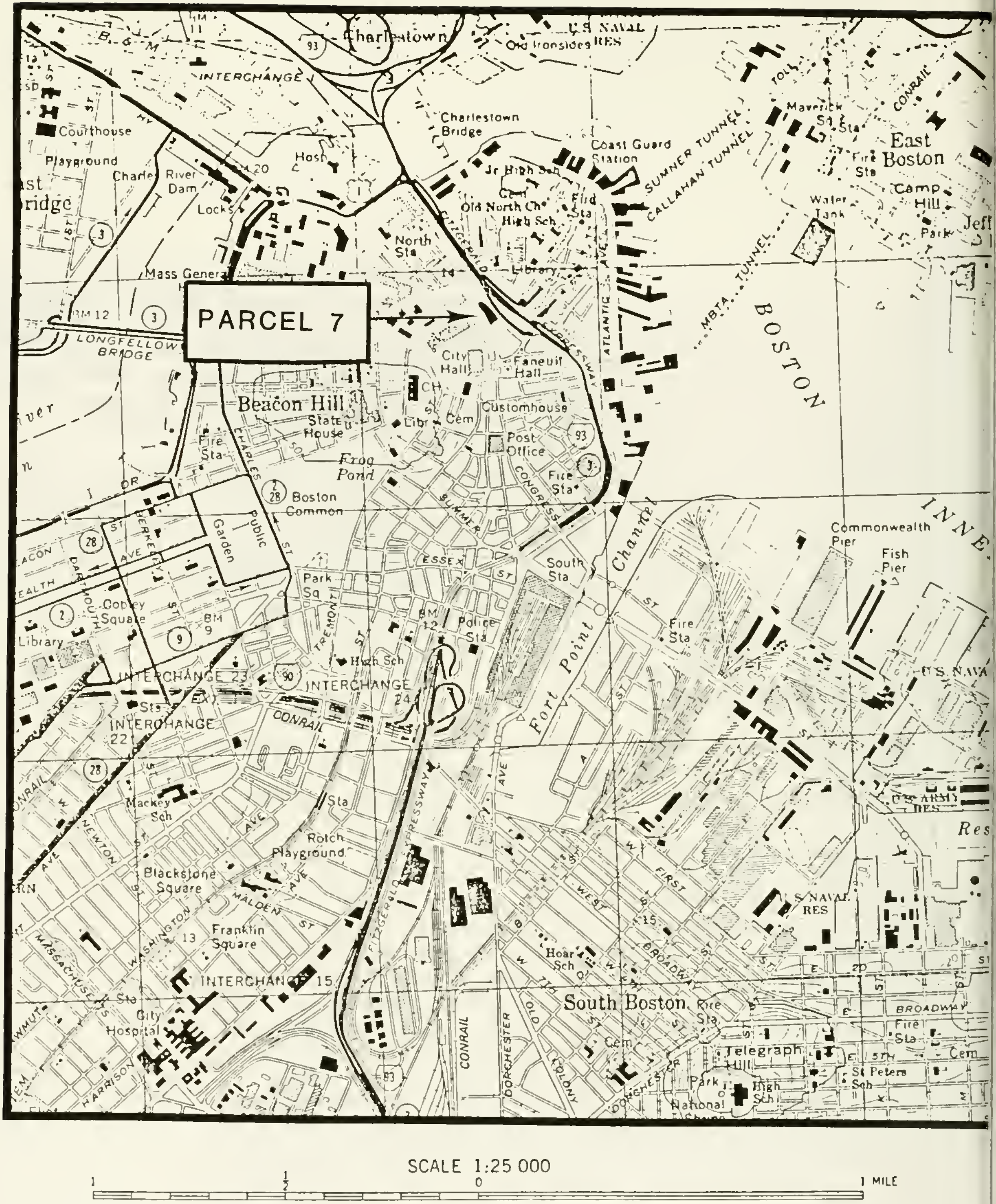


Figure 1. U.S.G.S. topographical map showing location of Parcel 7 property.

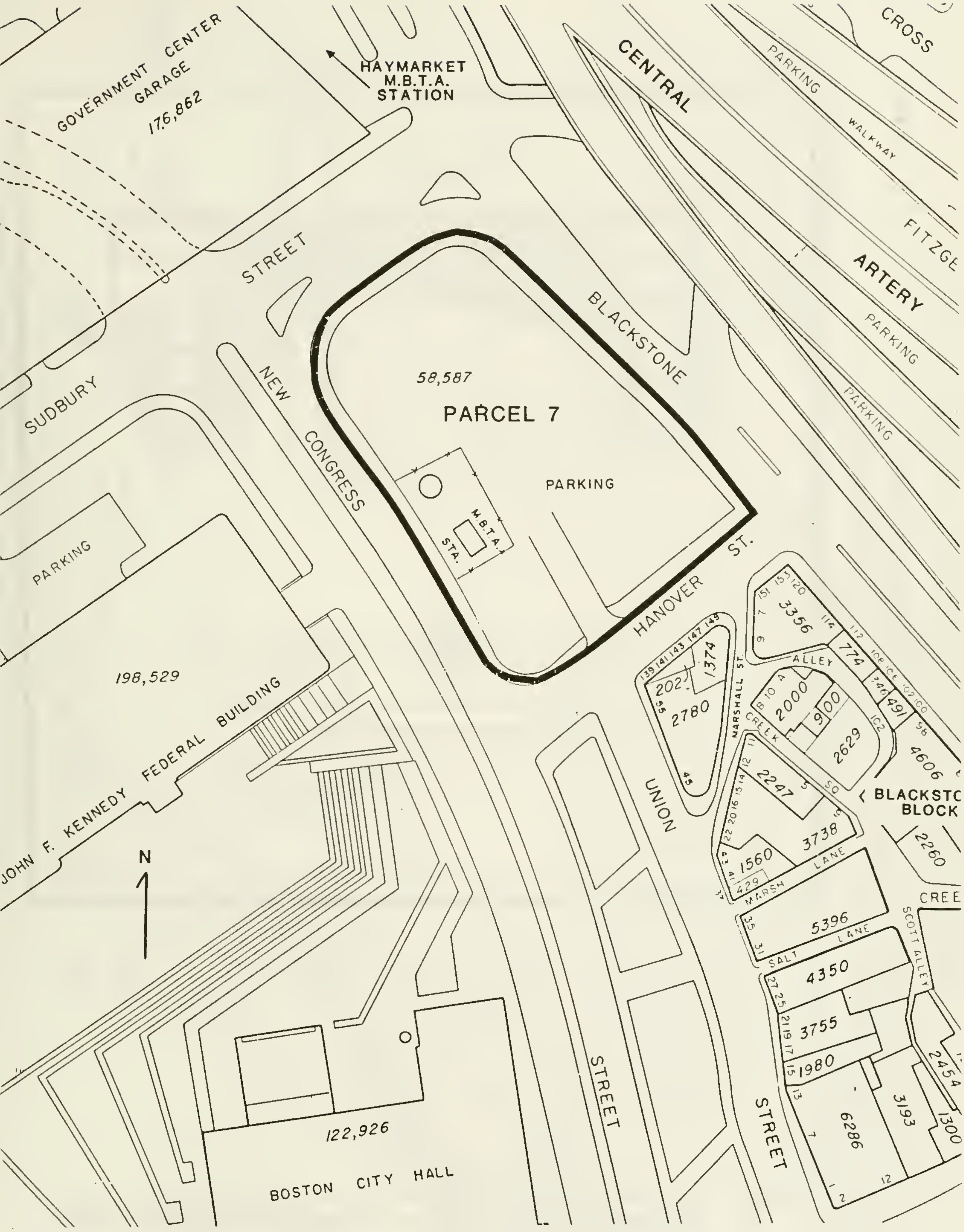


Figure 2. Location of Parcel 7 property. (Source: Boston Redevelopment Authority)

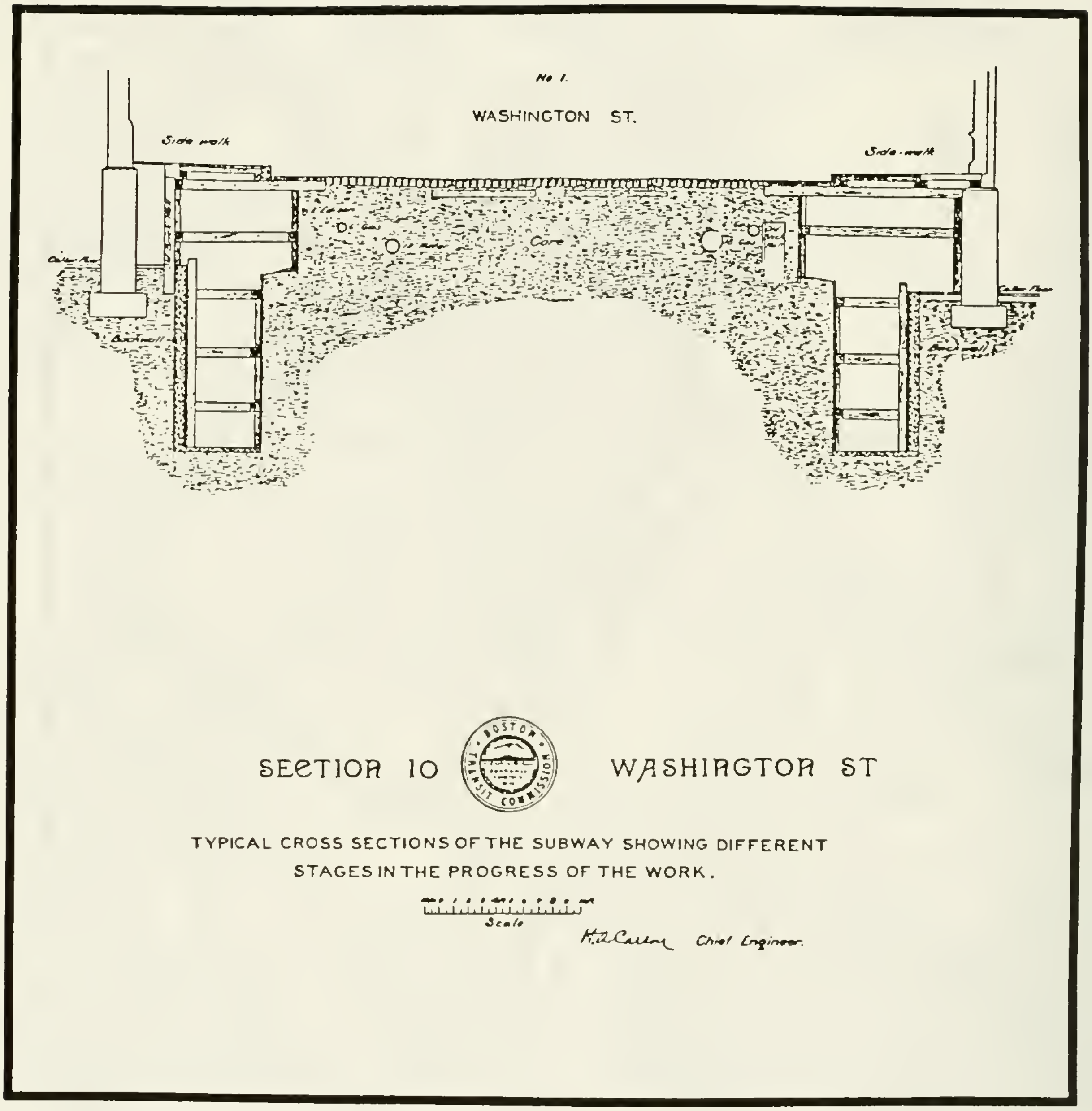

No 1.
WASHINGTON ST.
Side walk
Side-walk
Core
Backwall
Backwall
SECTION 10 WASHINGTON ST
BOSTON TRANSIT COMMISSION
TYPICAL CROSS SECTIONS OF THE SUBWAY SHOWING DIFFERENT STAGES IN THE PROGRESS OF THE WORK.
Scale
H. A. Carson Chief Engineer.

Figure 3. Typical cross section of Green Line subway construction under Washington Street. (Source: Boston Transit Commission 1897: Plate 28, no. 1)

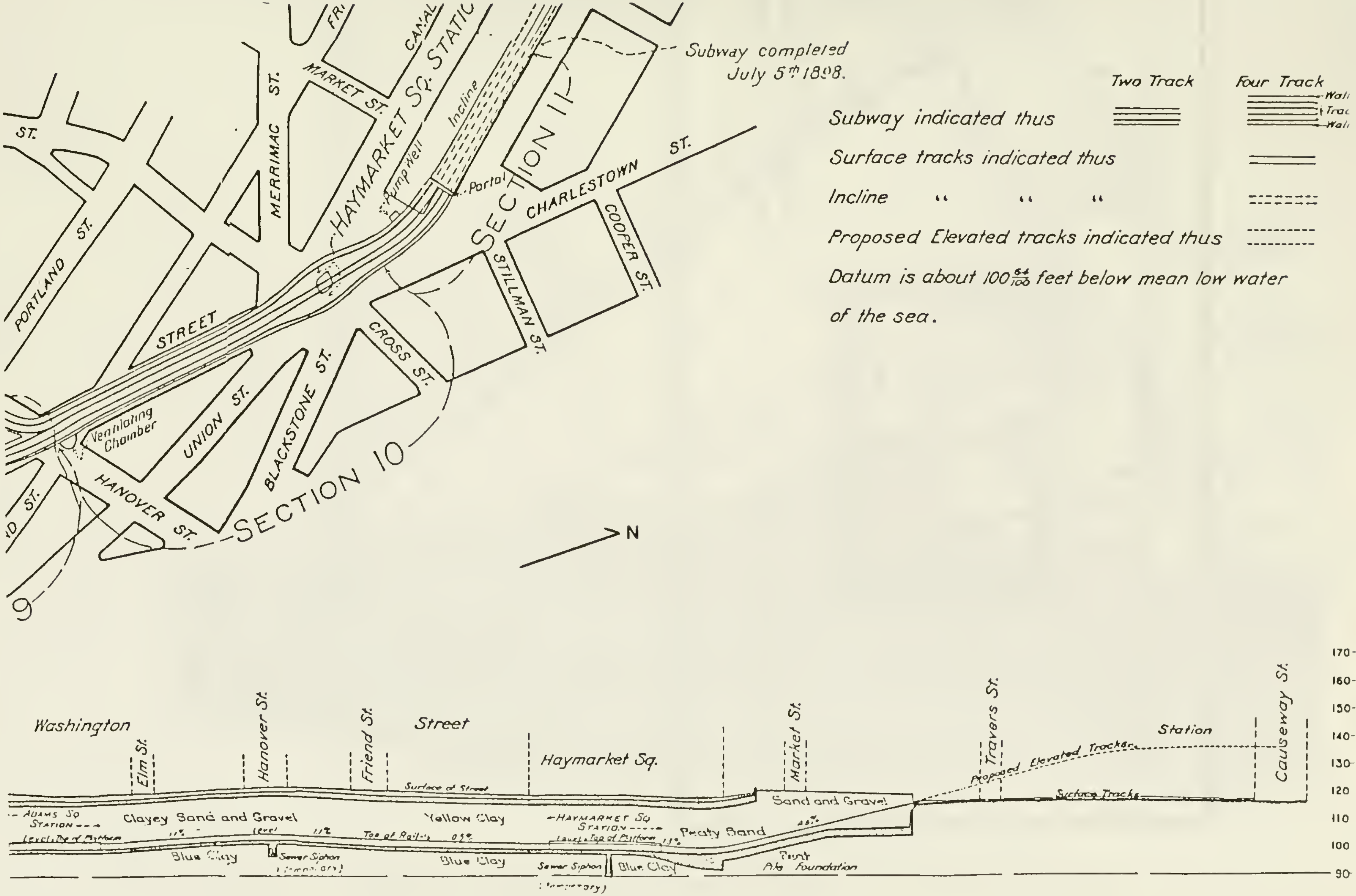


Figure 4. Plan and cross section of Green Line subway construction

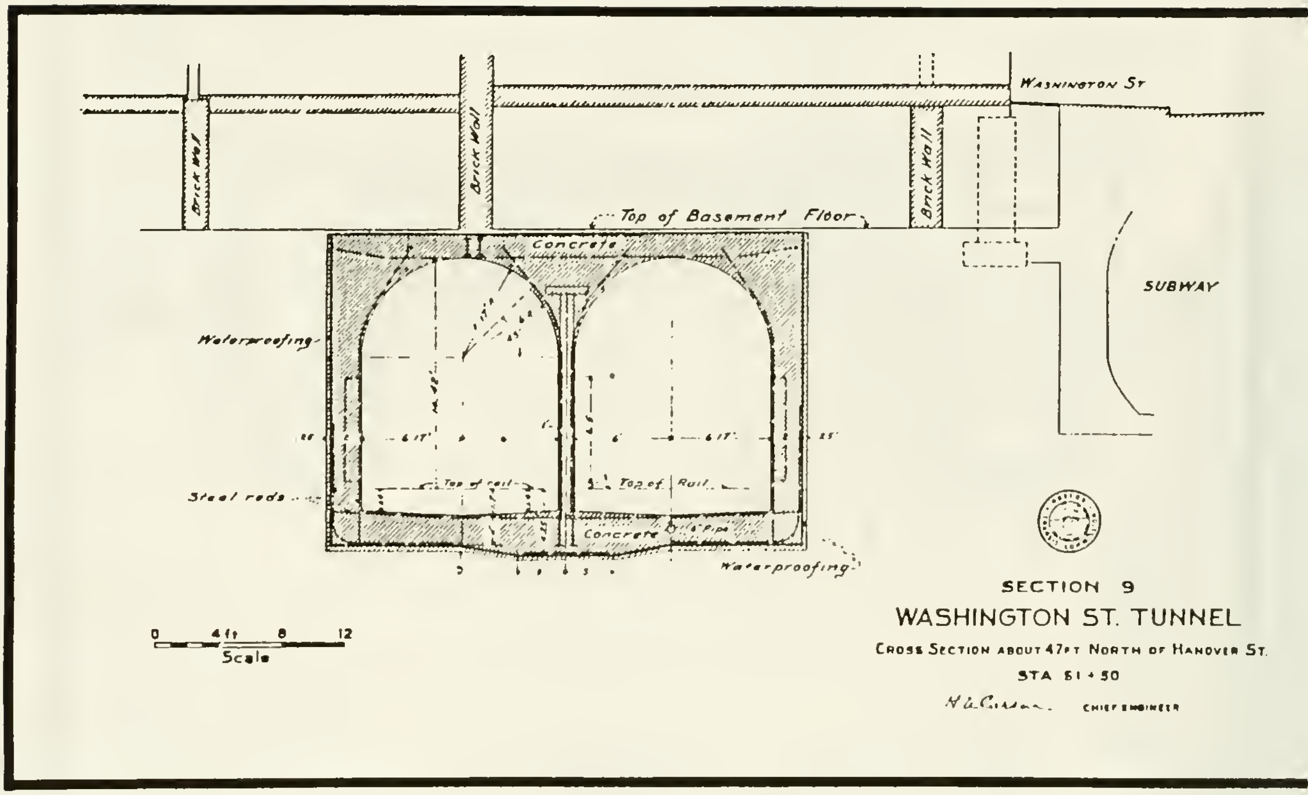


Figure 5. Typical cross section of Orange Line subway tunnel north of Washington Street. (Source: Boston Transit Commission 1906: Plate 10)

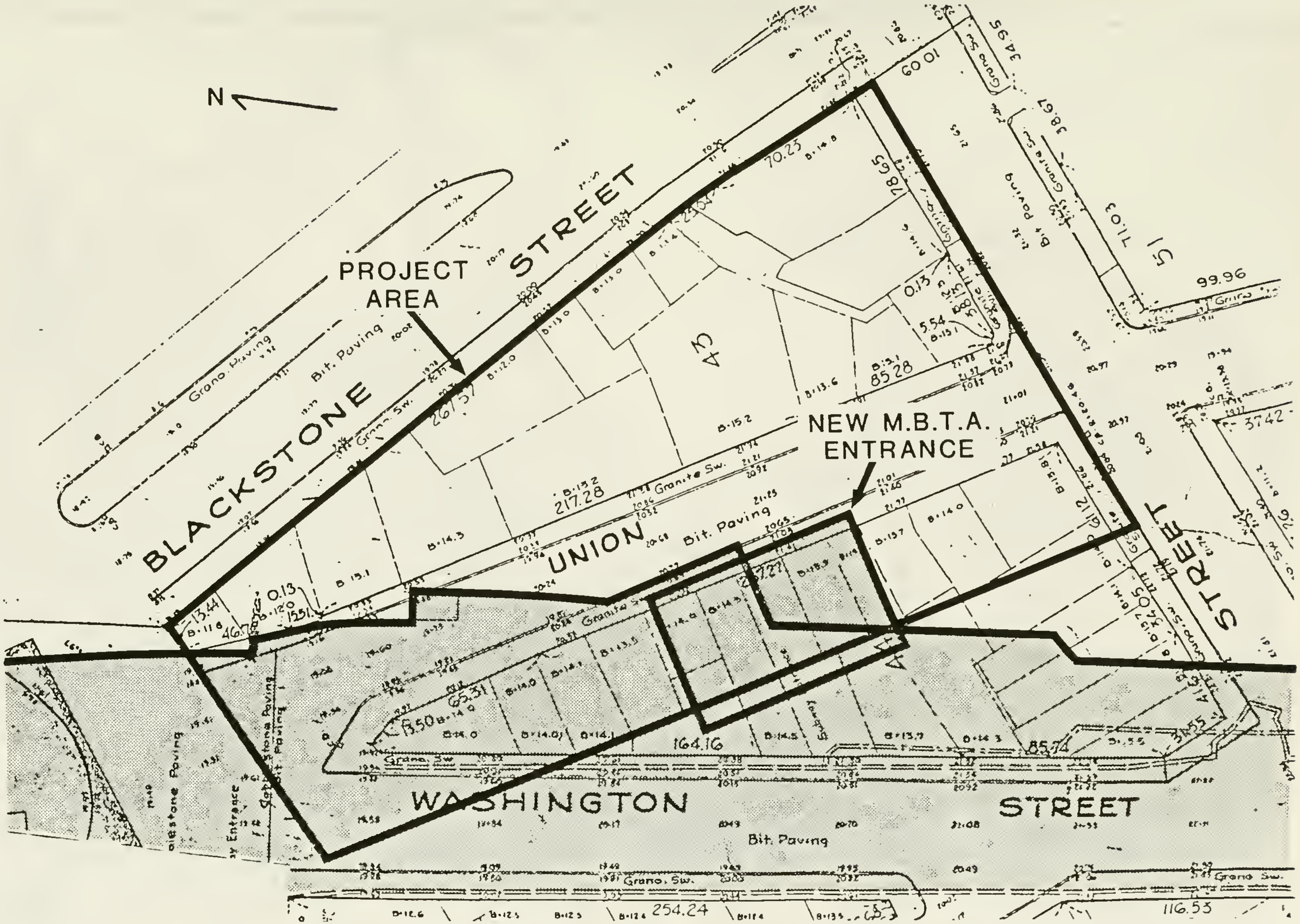
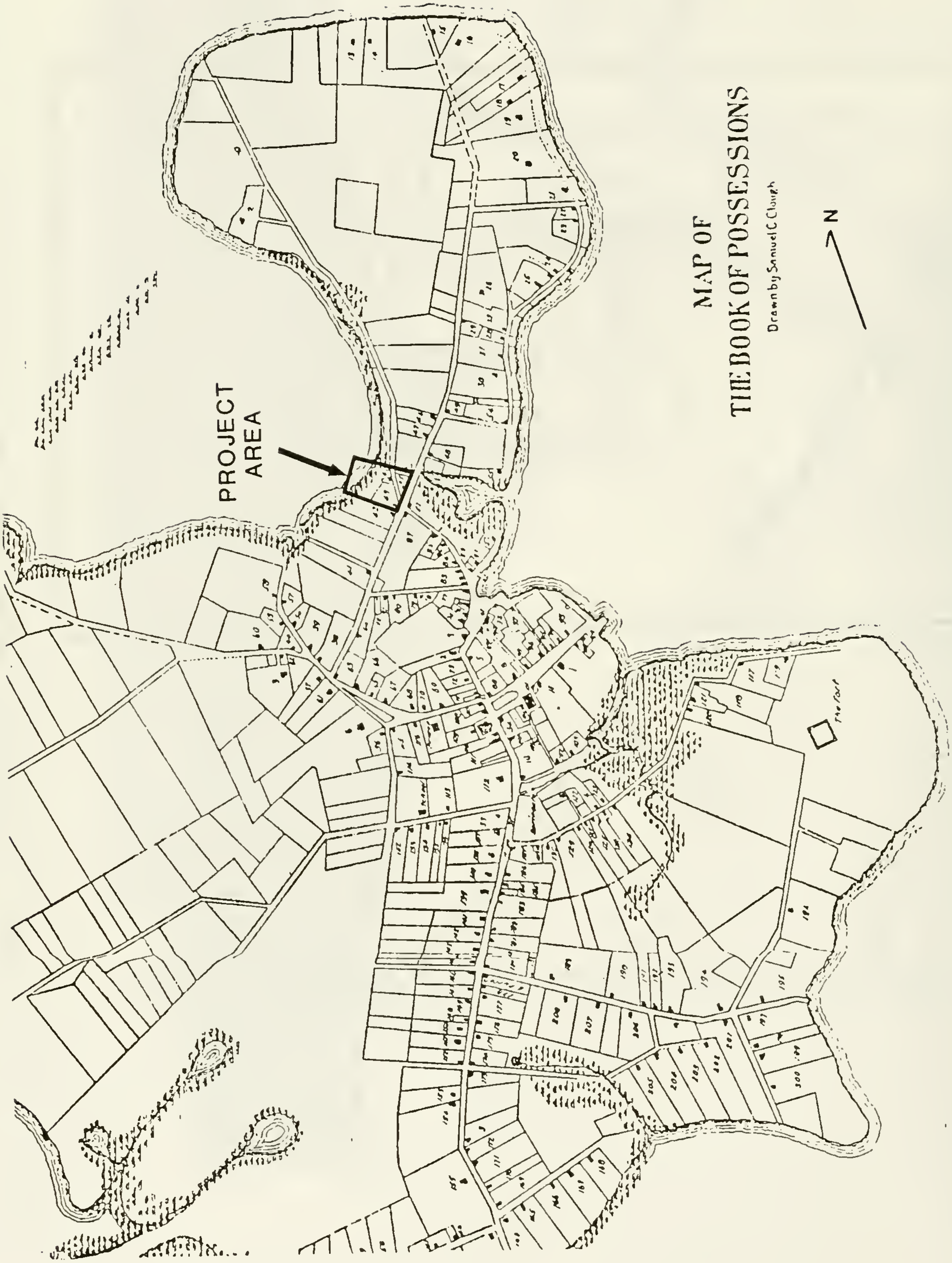


Figure 6. Plan of area disturbed by subway tunnel and subway entrance construction.


MAP OF
THE BOOK OF POSSESSIONS
Drawn by Samuel C Clough
N
PROJECT AREA
The Fort

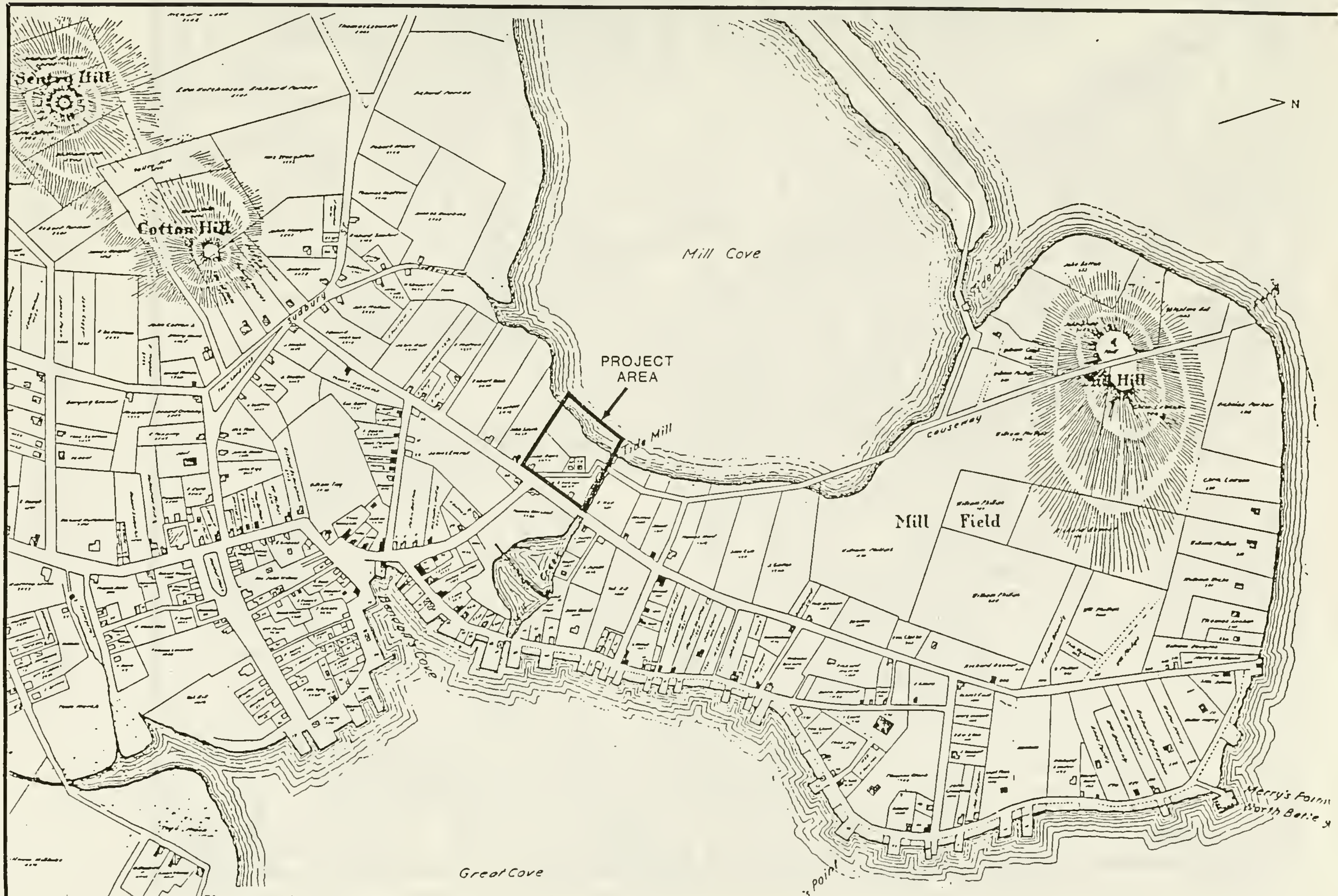


Figure 8. Clough's "Map of the Town of Boston, 1648".

FIGURE 8

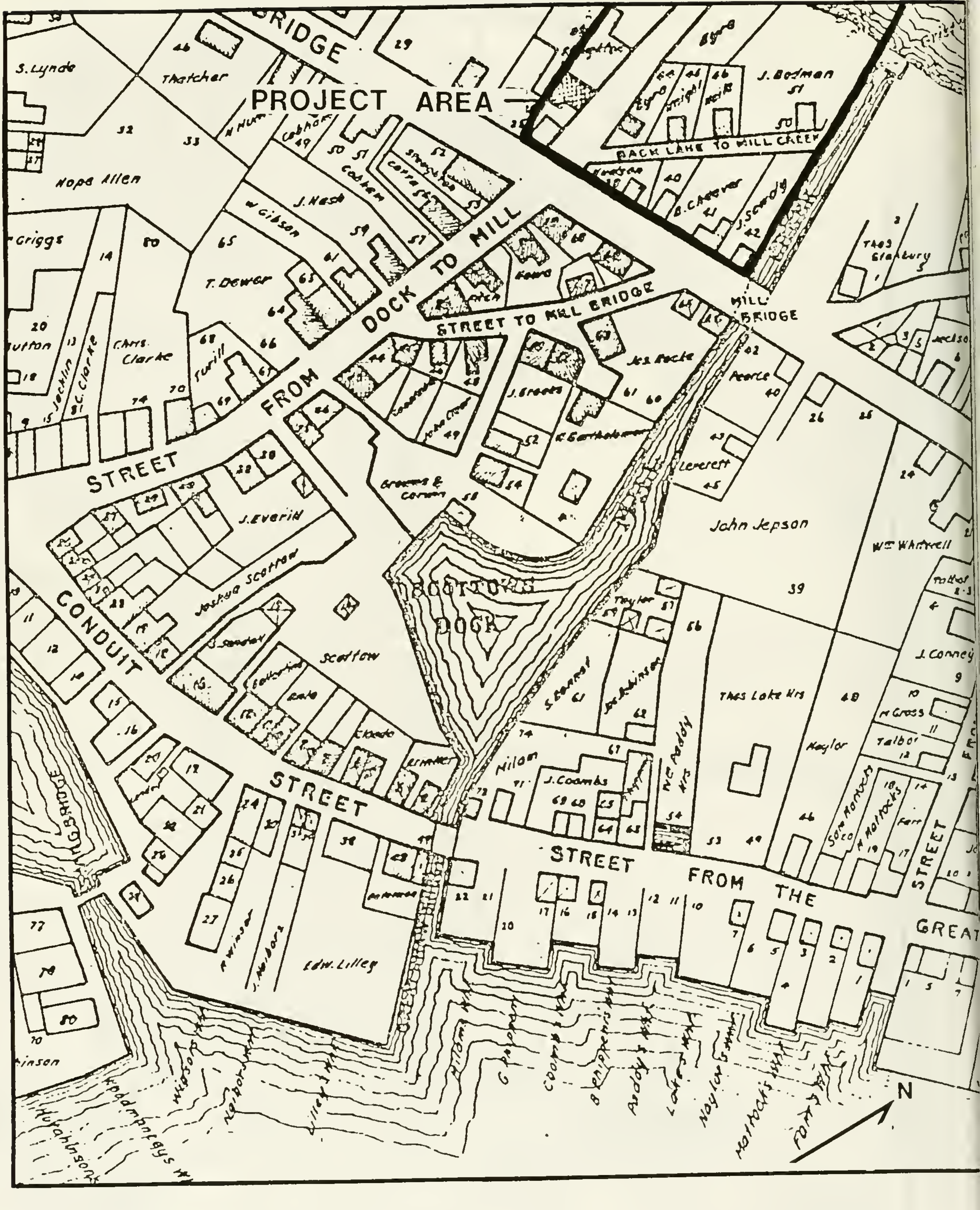


Figure 9. Clough's "Map of the Town of Boston, 1676".

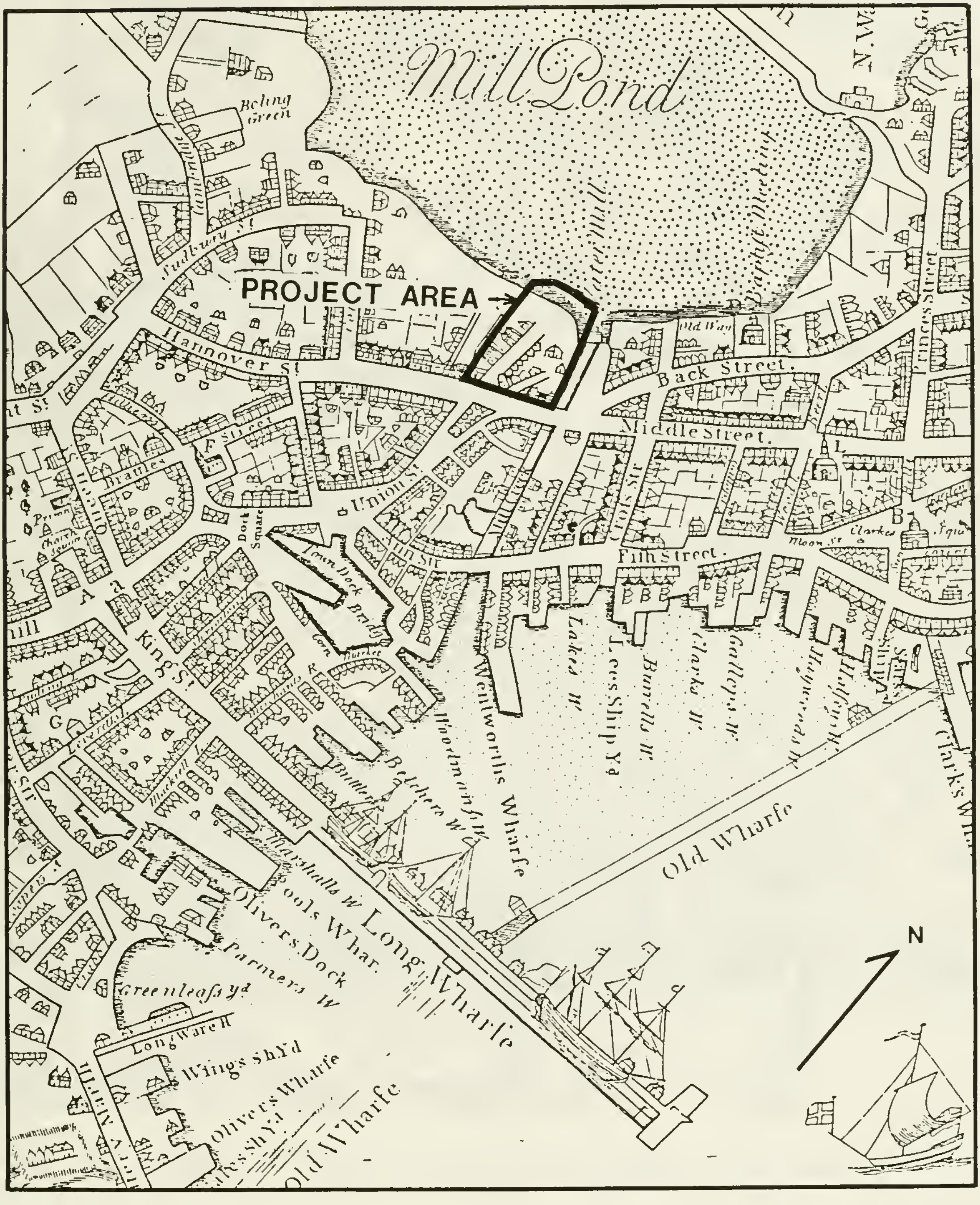


Figure 10. Detail of 1722 Bonner map of Boston.

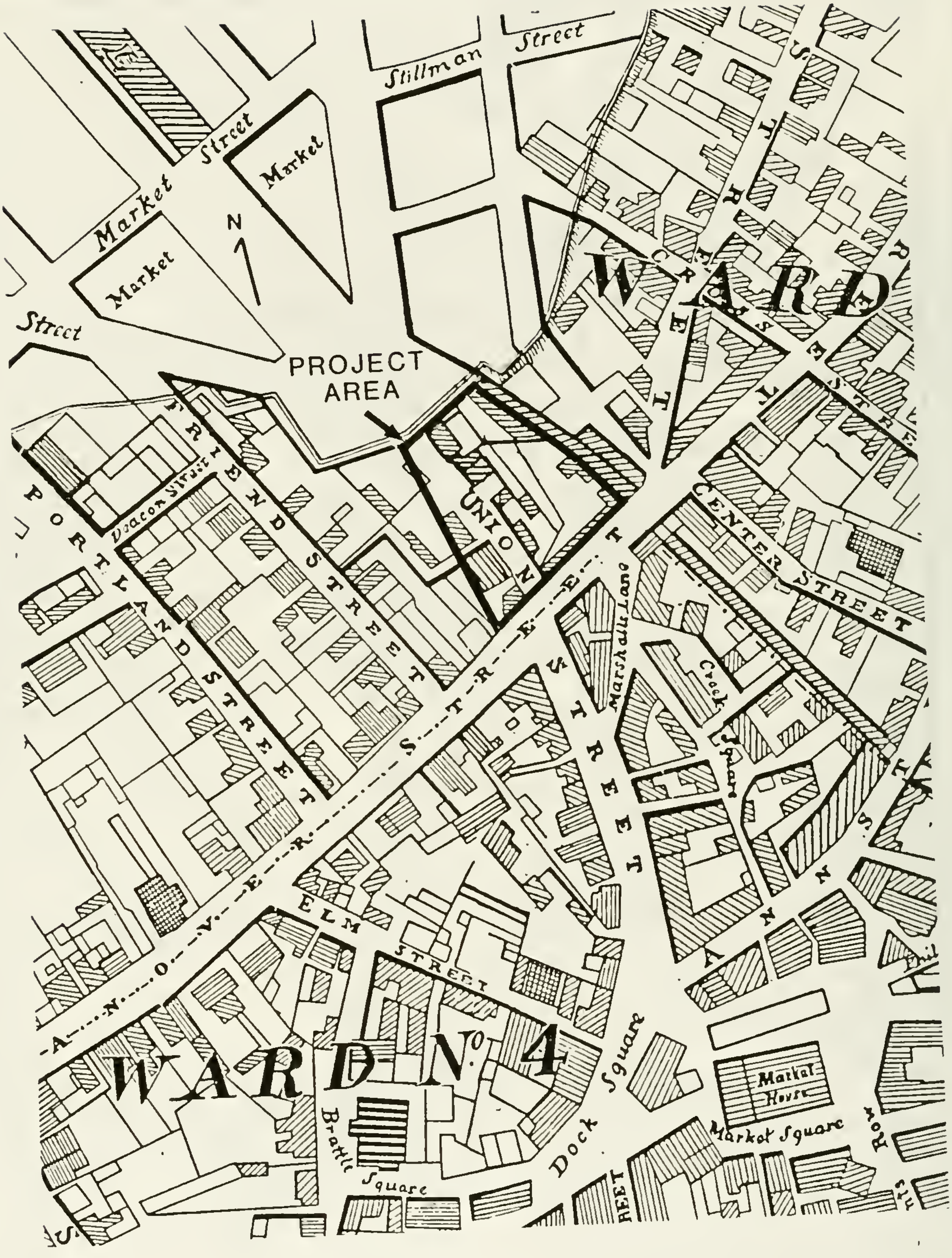


Figure 11. Detail of 1814 Hales map of Boston.

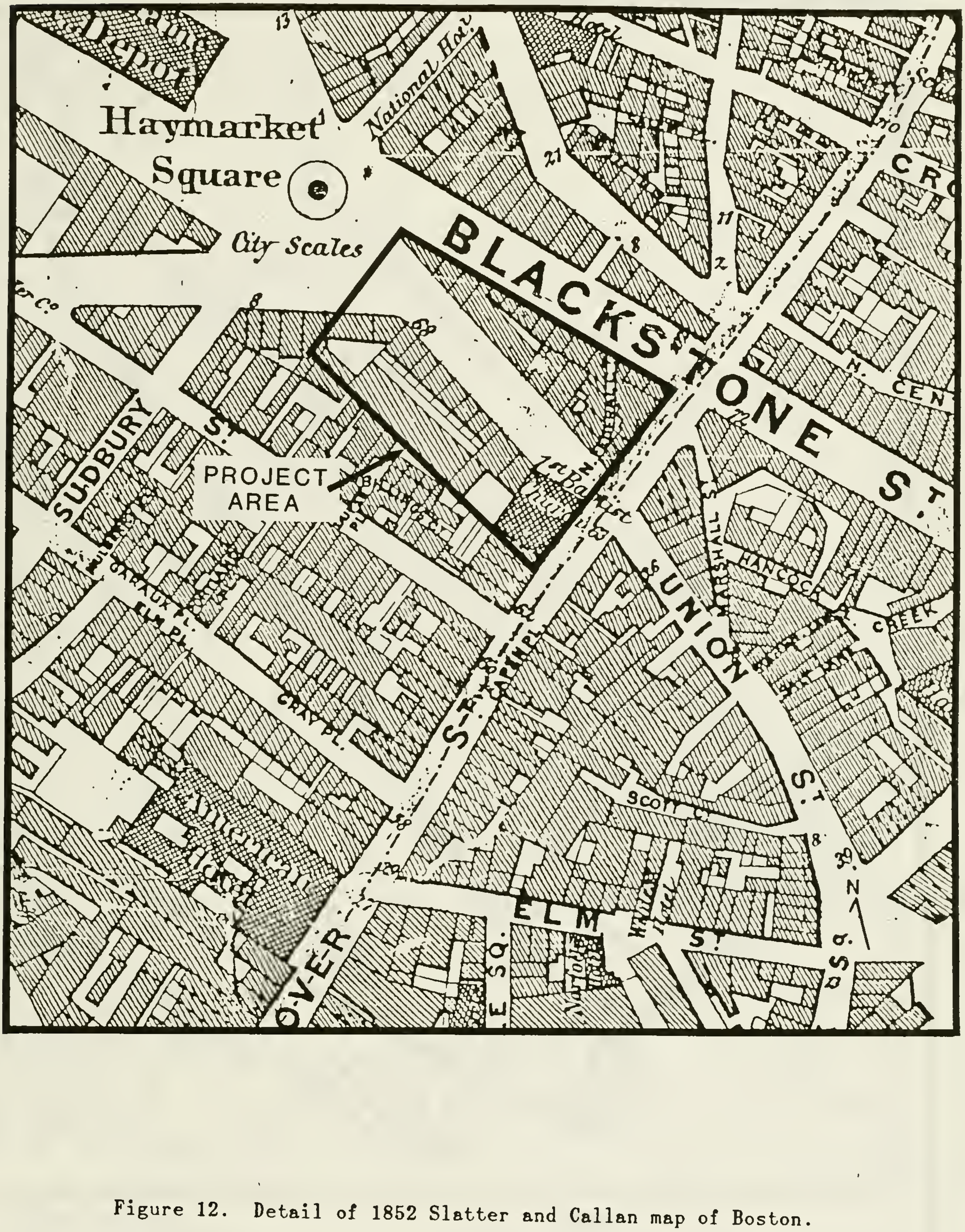


Figure 12. Detail of 1852 Slatter and Callan map of Boston.

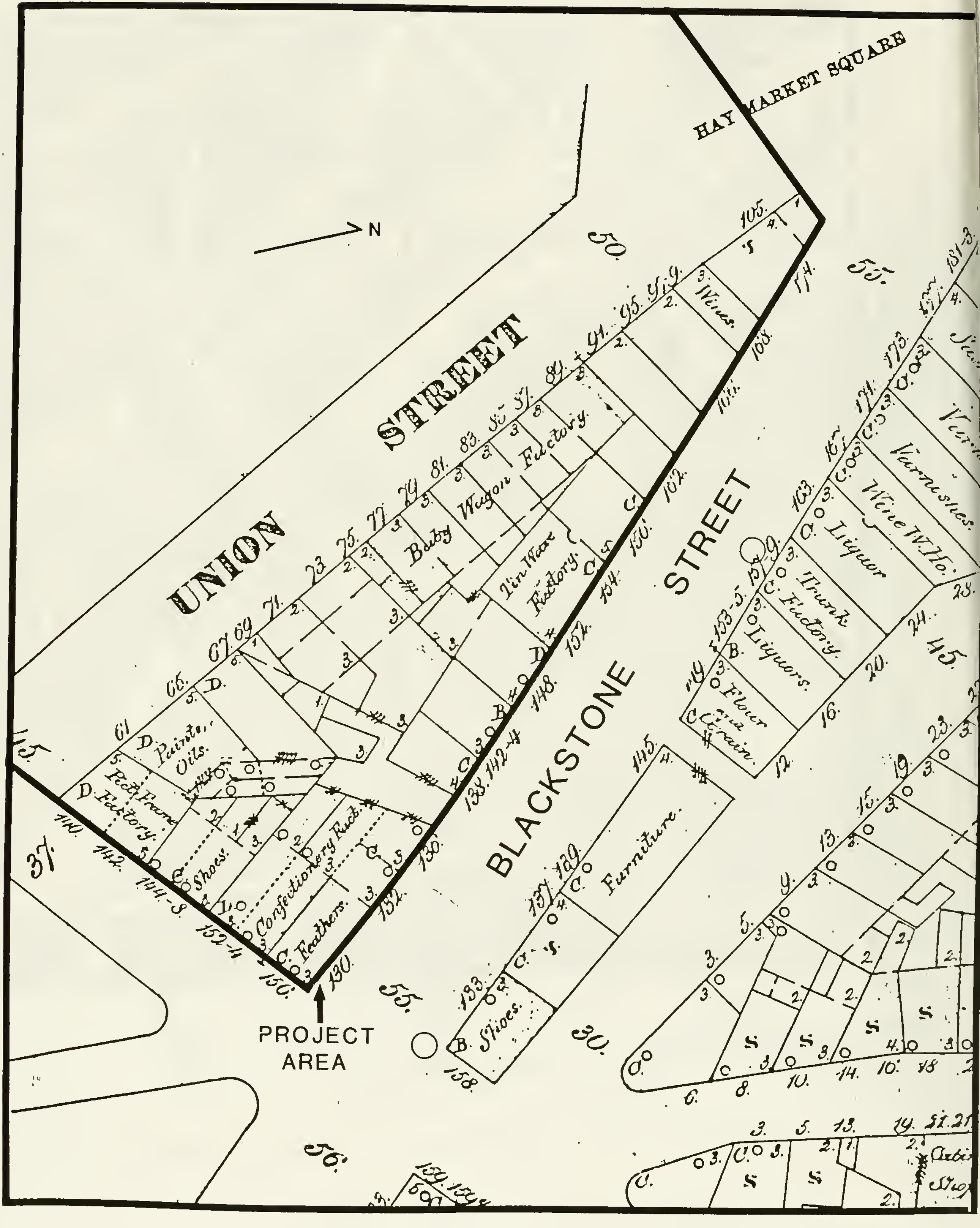


Figure 13A. Detail of 1867 Sanborn map of Boston, showing lots north Union Street.

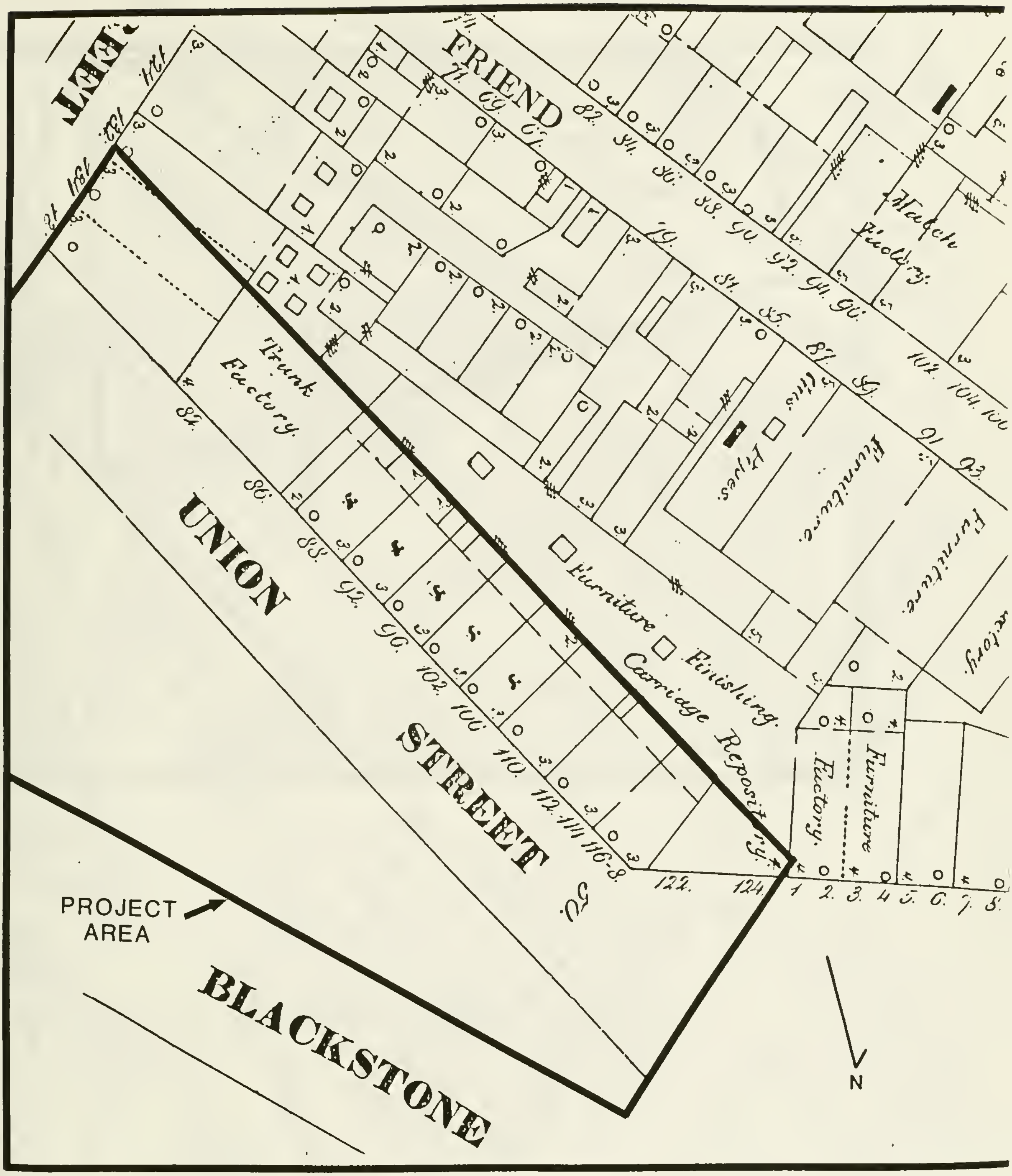


Figure 13B. Detail of 1867 Sanborn map of Boston, showing lots south of Union Street.

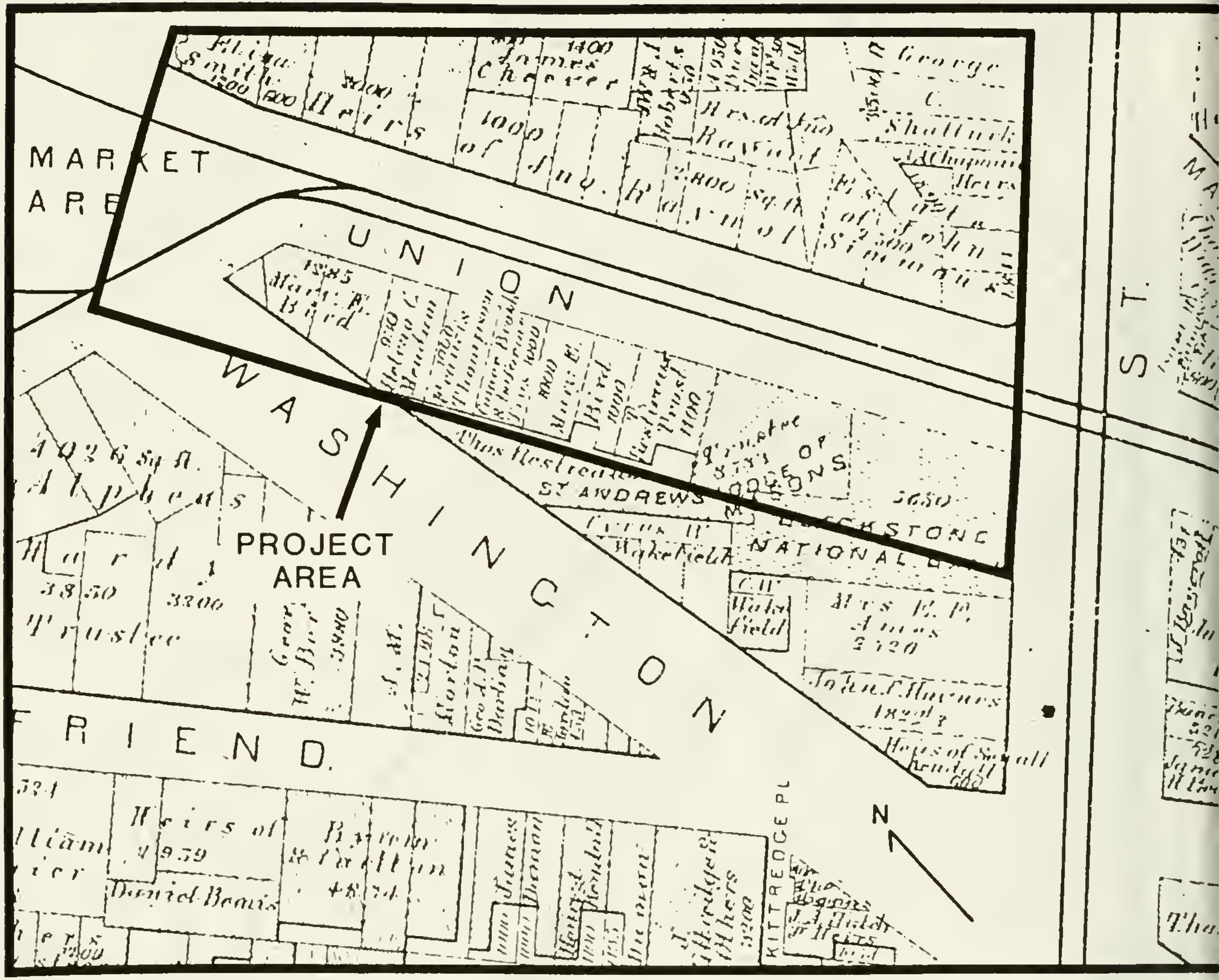


Figure 14. Detail of 1874 Hopkins map of Boston.

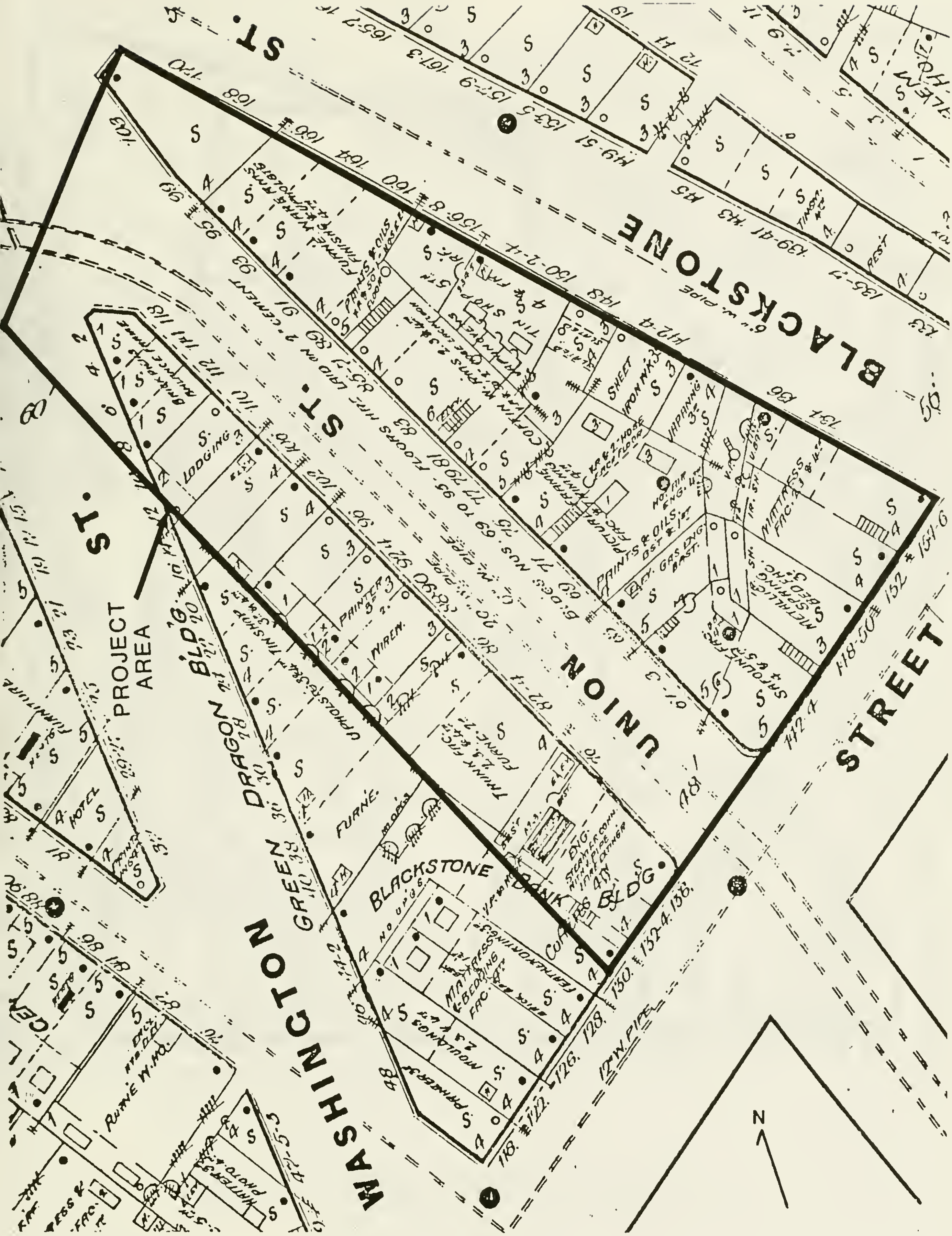
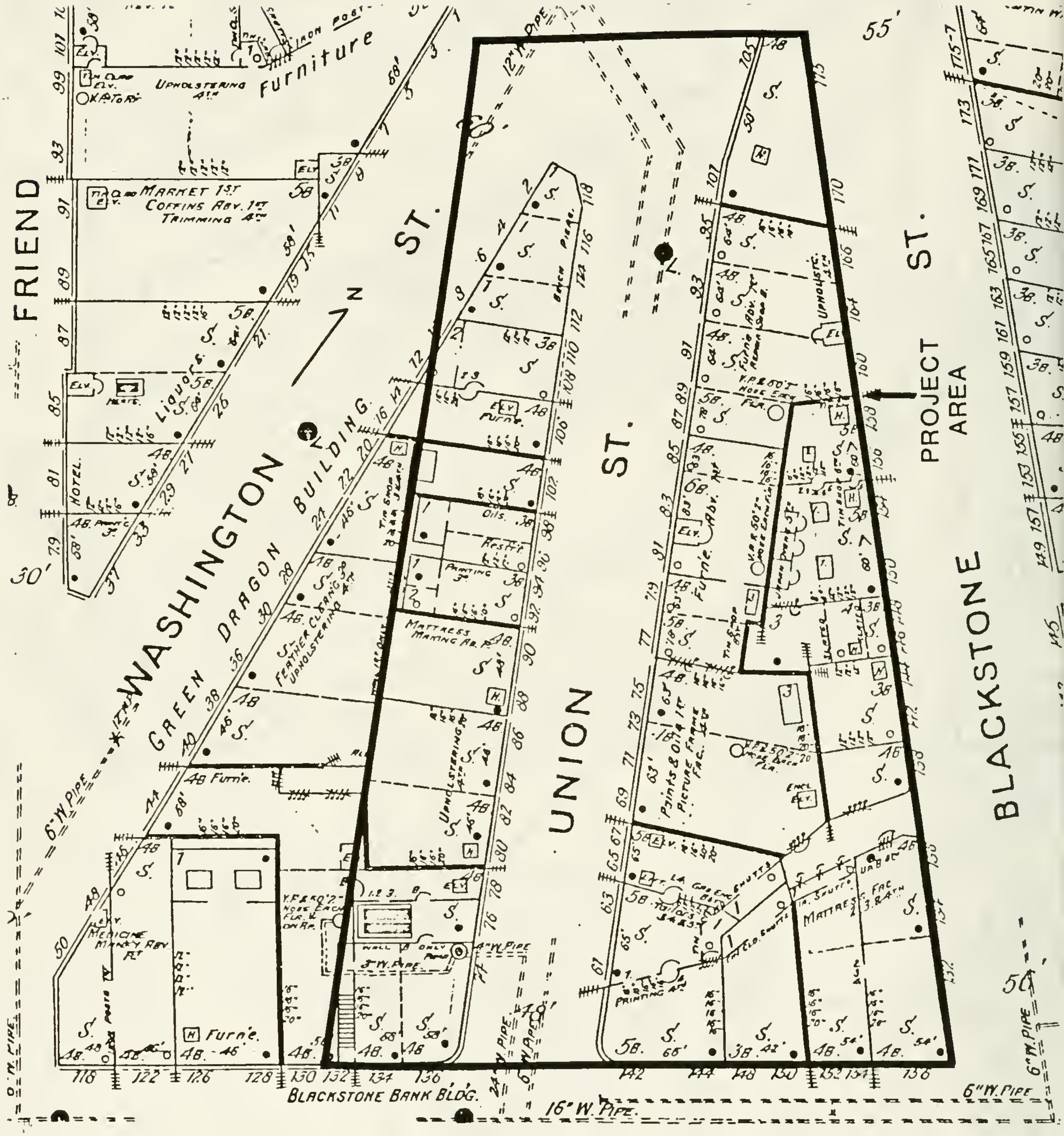


Figure 15. Detail of 1885 Sanborn map of Boston


FRIEND
WASHINGTON
ST.
GREEN DRAGON BUILDING
UNION
ST.
BLACKSTONE
ST.
PROJECT AREA
N
Furniture
Upholstering 4th
Market 1st
Coffins Abv. 1st
Trimming 4th
Liquors
Hotel.
Feather Clean'g Upholstering 4th
Mattress Making Ab. 1st
Tin Shop
Oils.
Rest'r.
Printing 3d
Upholstering 4th
Furn'e.
Furn'e. Adv. 1st
Paints & Oils 1st Picture Frame Fac.
Upholst'g 1st
Tin Shop
Mattress Fac. 2 3 & Ath
Tailor's
Printing 4th
Medicine Manf'y Abv. 1st
Brick Piers
12" W. Pipe
6" W. Pipe
4" W. Pipe
16" W. Pipe
24" W. Pipe
Blackstone Bank Bldg.
55'
50'
30'

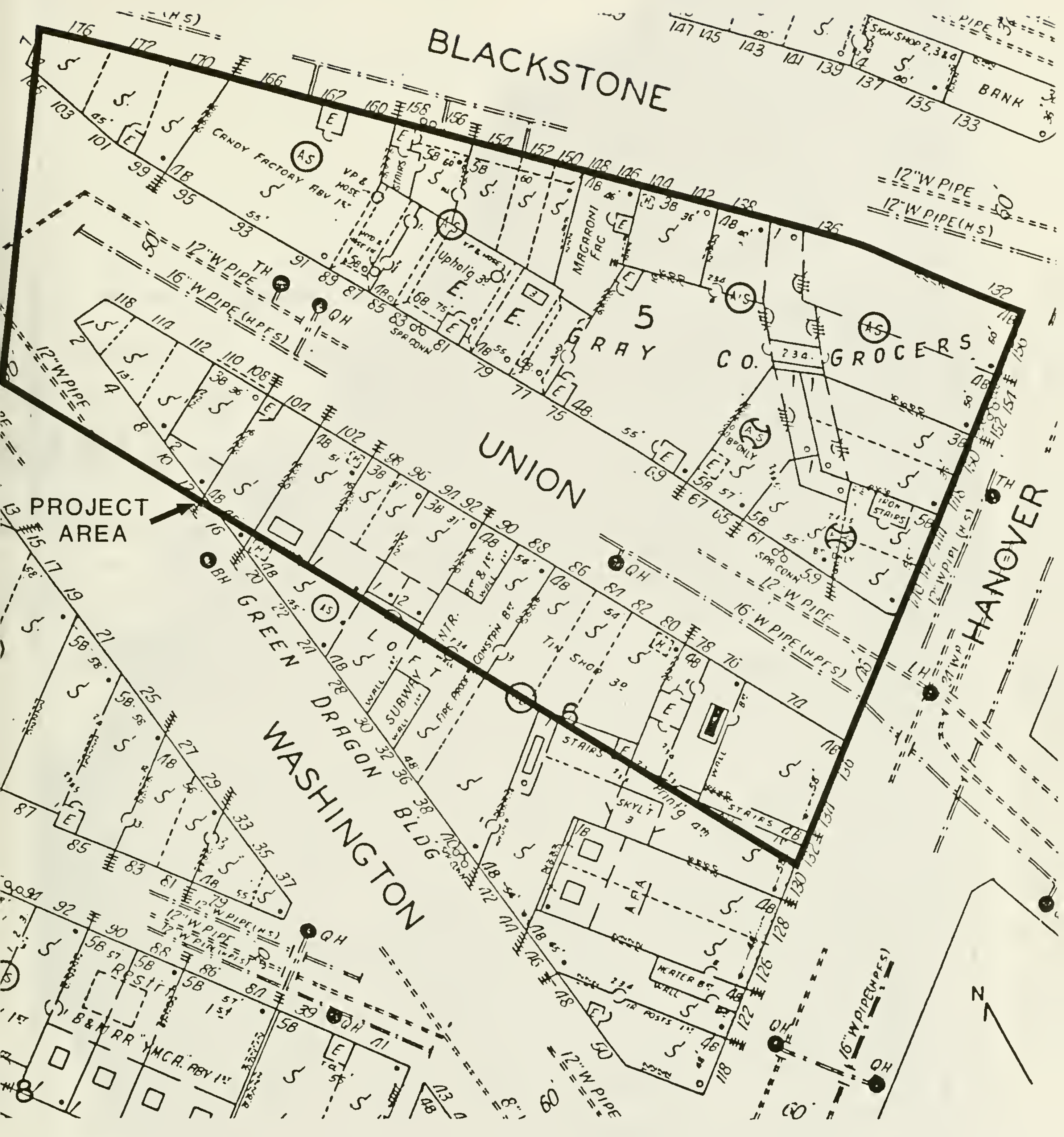
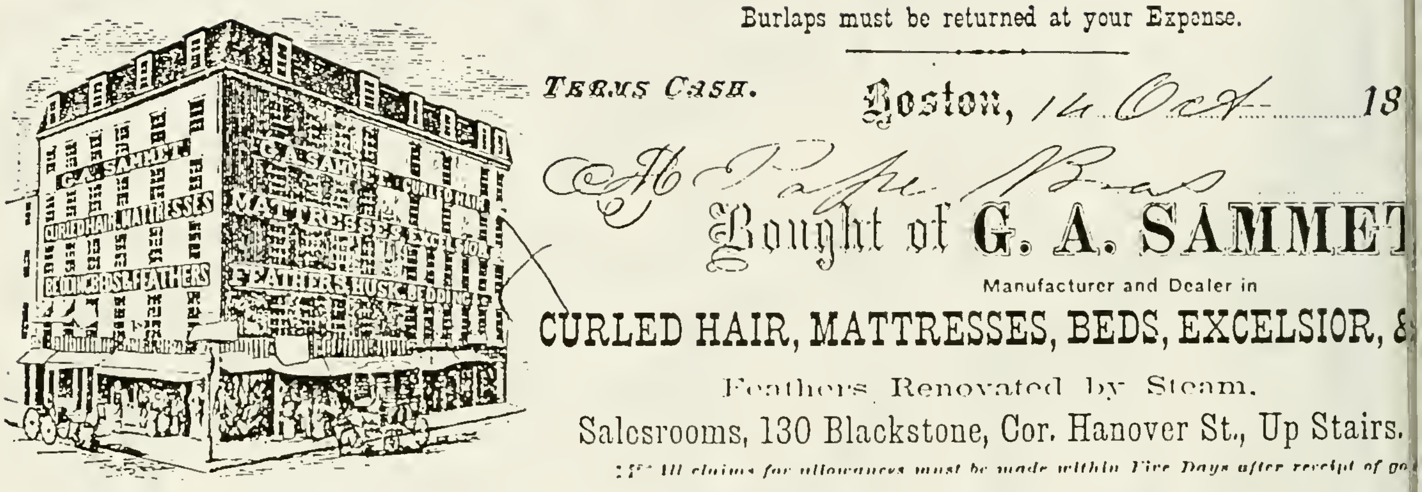


Figure 17. Detail of 1929 Sanborn map of Boston.


G. A. SAMMET.
CURLED HAIR, MATTRESSES
BEDDING, BEDS & FEATHERS
G. A. SAMMET. CURLED HAIR
MATTRESSES, EXCELSIOR
FEATHERS, HUSK, BEDDING

Burlaps must be returned at your Expense.

Terms Cash. Boston, 14 Oct 18

M Paffe Bros

Bought of **G. A. SAMMET**

Manufacturer and Dealer in

CURLED HAIR, MATTRESSES, BEDS, EXCELSIOR, &

Feathers Renovated by Steam.

Salesrooms, 130 Blackstone, Cor. Hanover St., Up Stairs.

☞ All claims for allowances must be made within Five Days after receipt of go

Figure 18. Receipt dated 1872, showing building on corner of Blackstone and Hanover Streets.

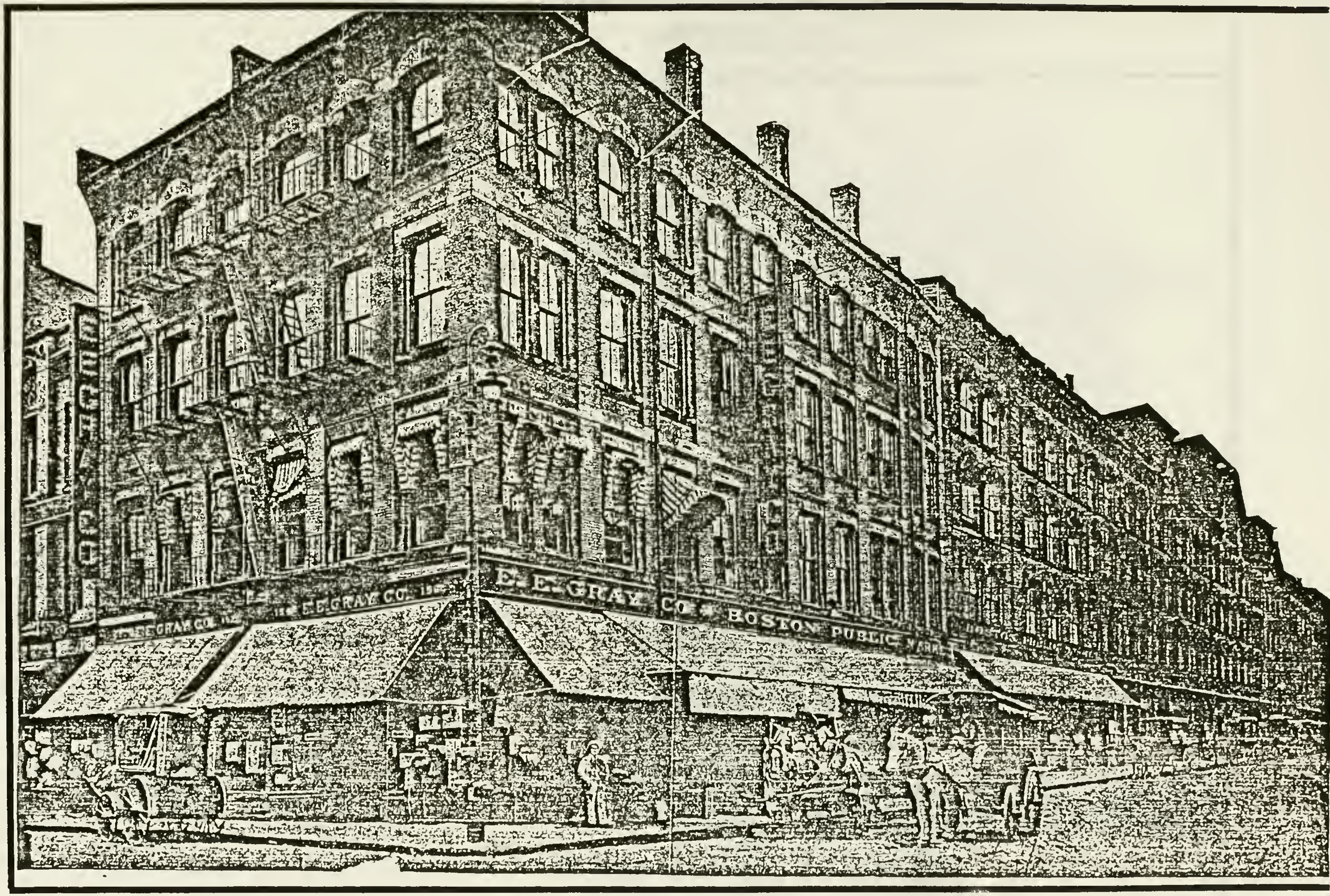
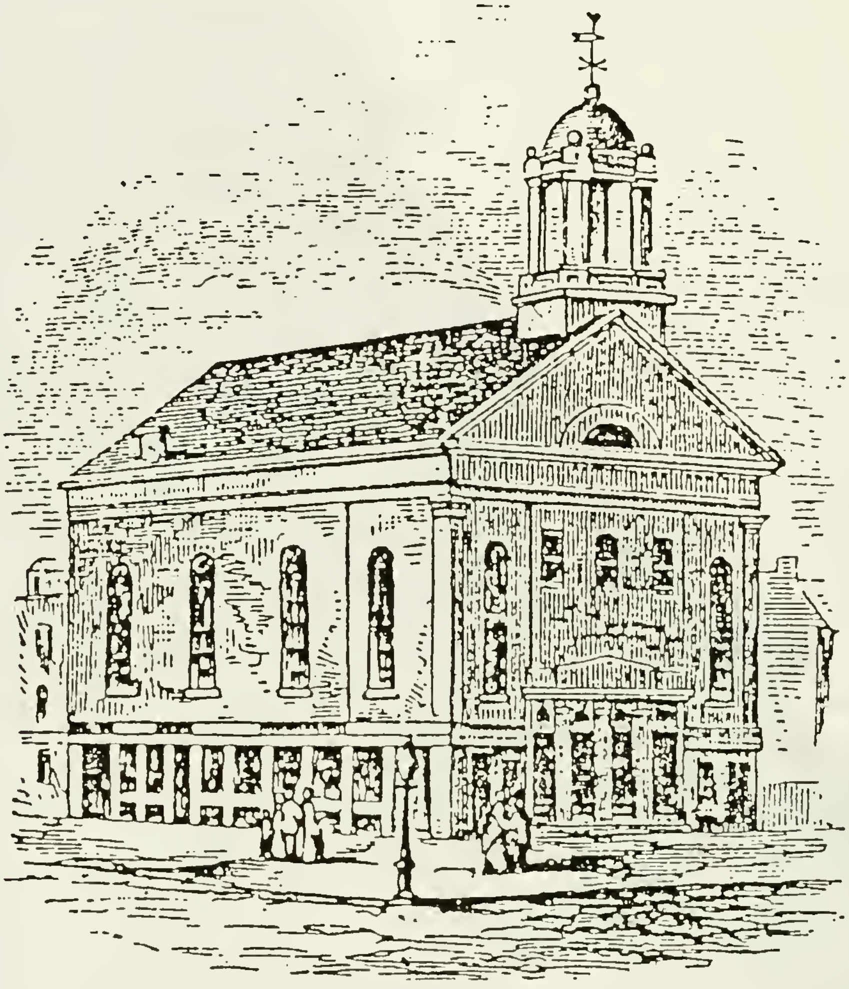


Figure 19. Photograph (c. 1930) showing building on corner of Blackstone and Hanover Streets. (Photo courtesy of the



FIRST BAPTIST CHURCH IN 1853.

Figure 20. Illustration of First Baptist Church in 1853. (Source: Drake 1971: 151)

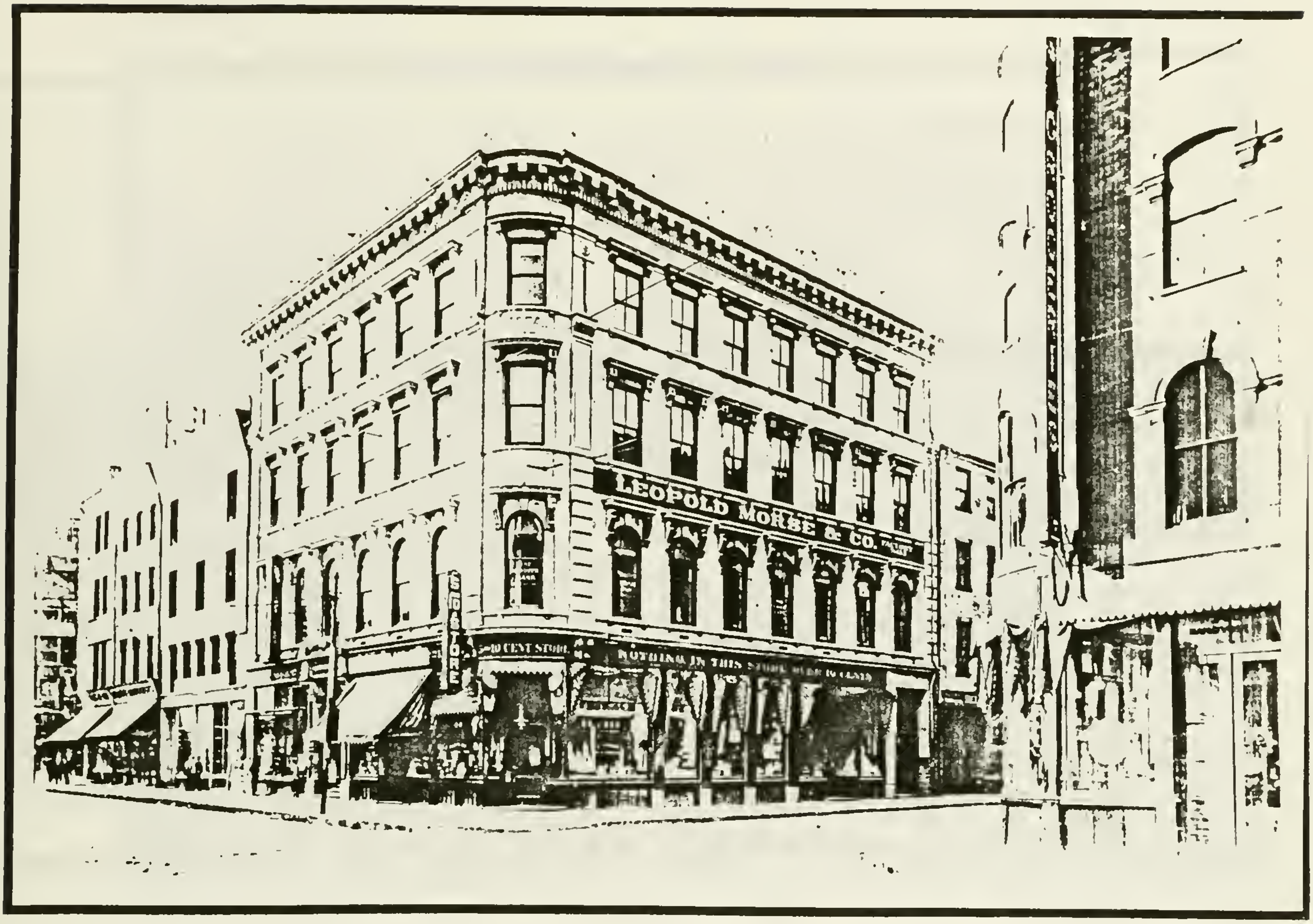
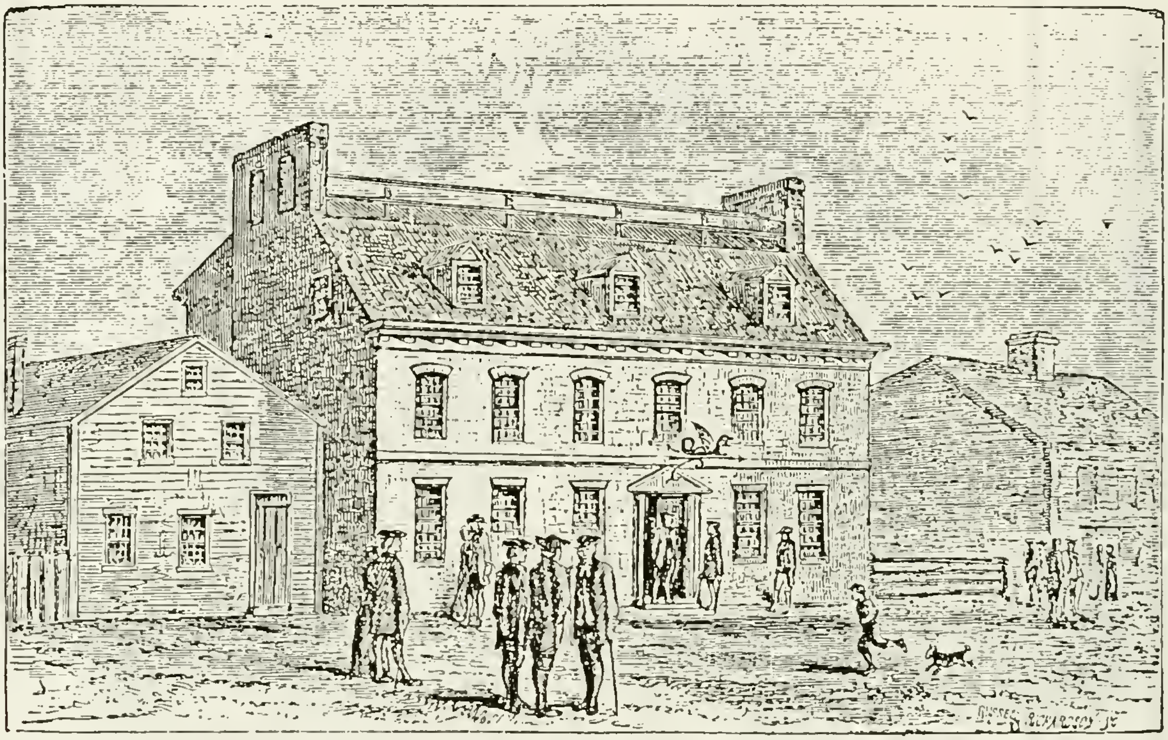


Figure 21. 1905 photograph of Blackstone Bank Building at corner of Union and Hanover Streets. (Photo courtesy of the Bostonian Society)



GREEN DRAGON TAVERN.

Figure 22. Illustration of the Green Dragon Tavern on Union Street. (Source: Stark 1882: 59)

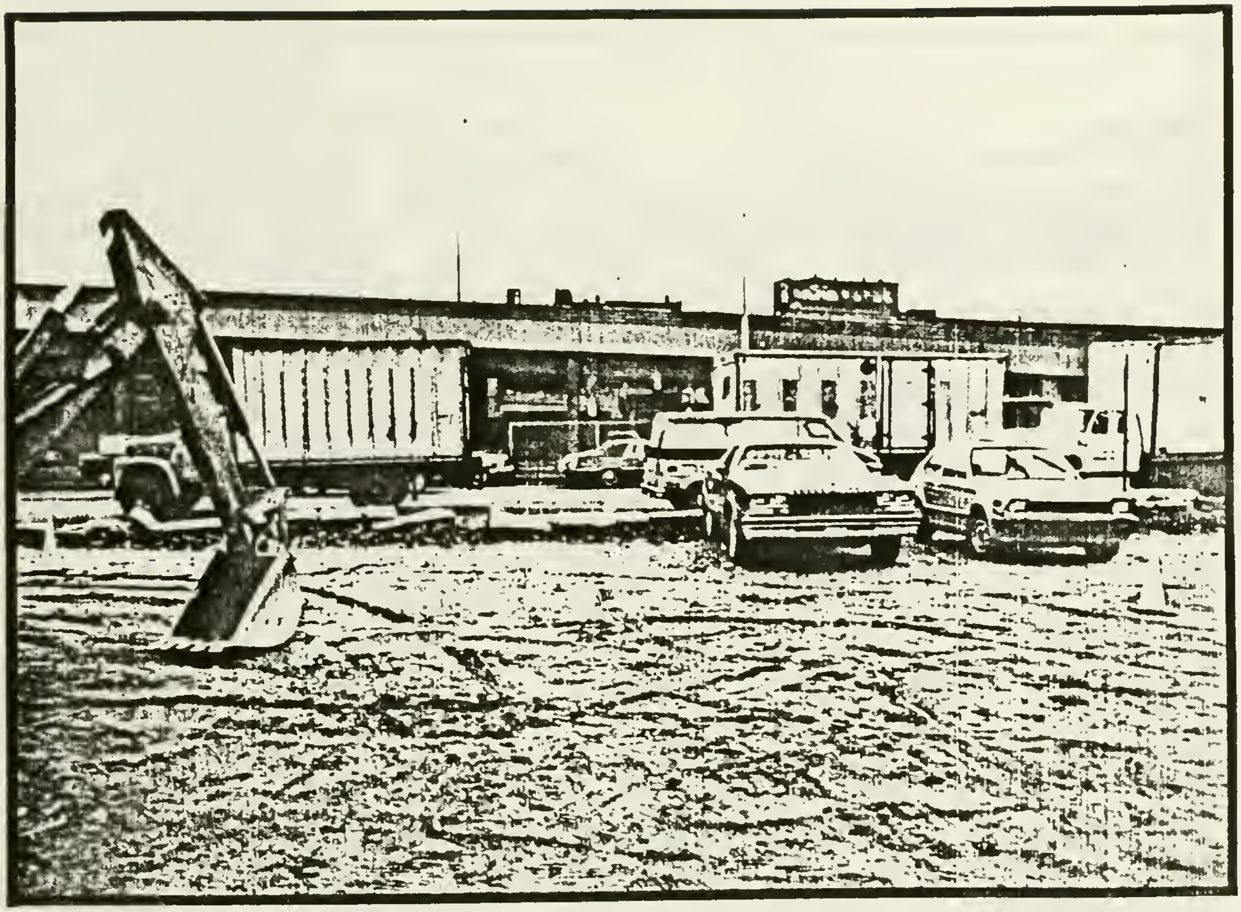


Figure 23. View of surface conditions in area of Trench 1, looking north.

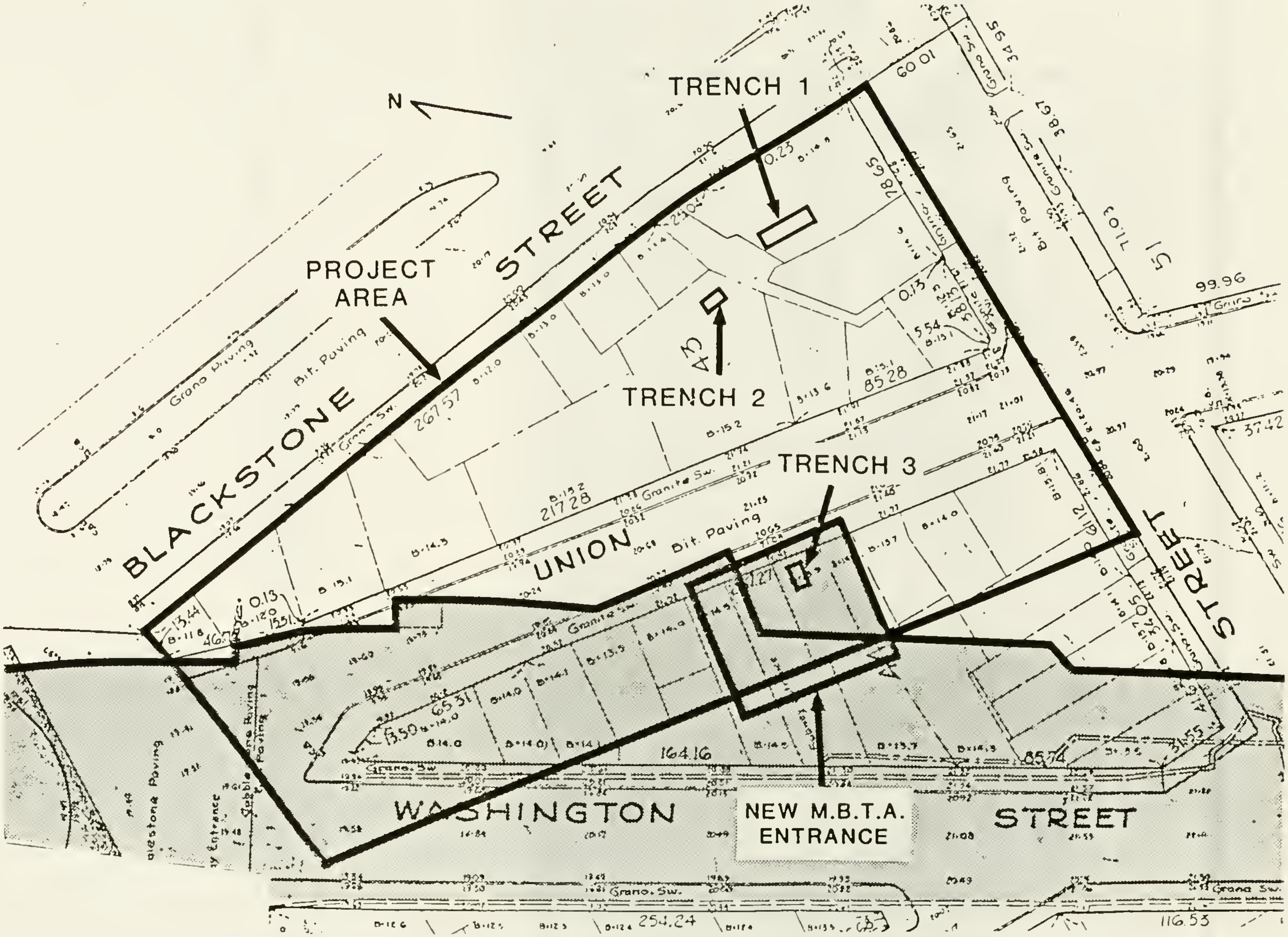


Figure 24. Location of Trenches 1-3 superimposed on B.R.A. plan of Parcel 7, showing basements.

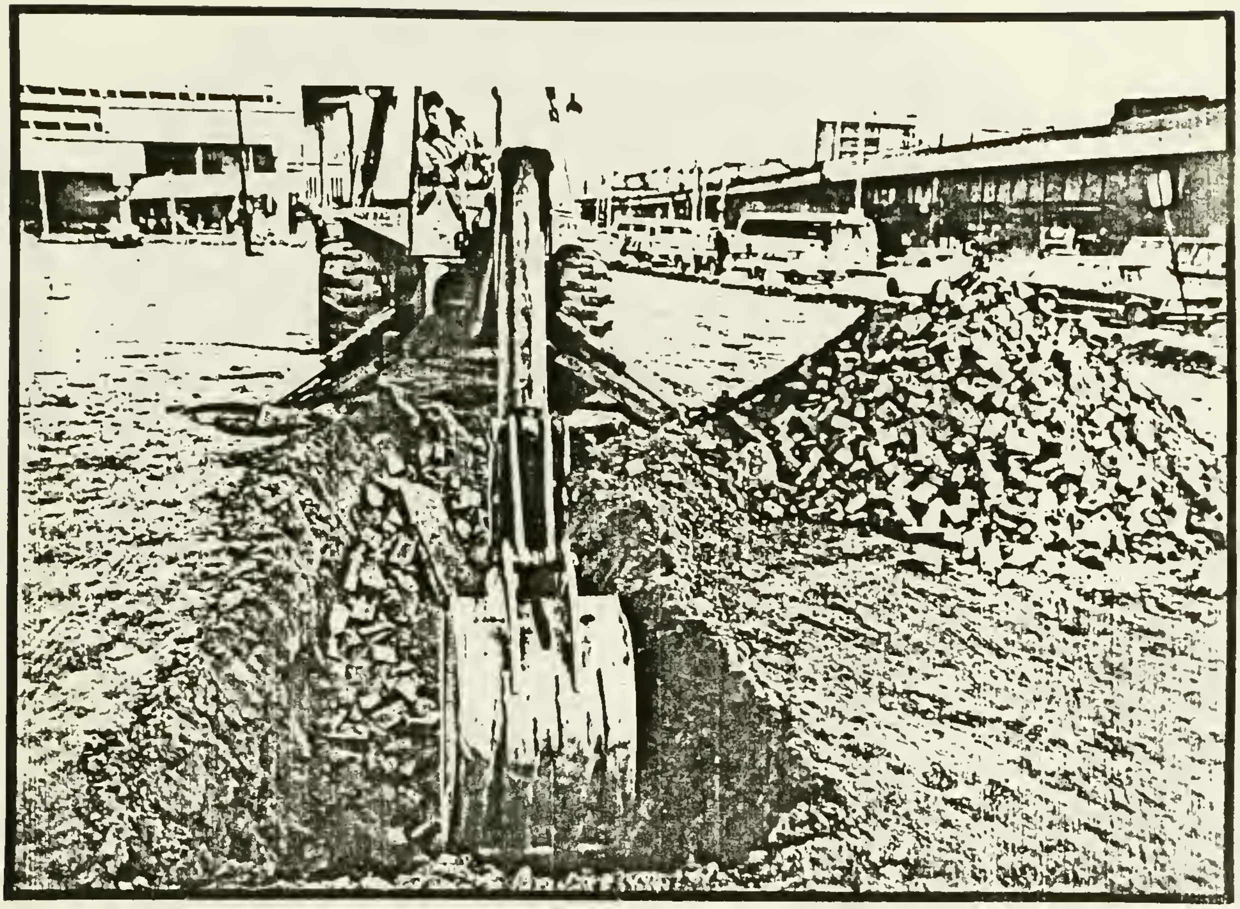


Figure 25. Excavation of rubble layer in Trench 1, looking west.

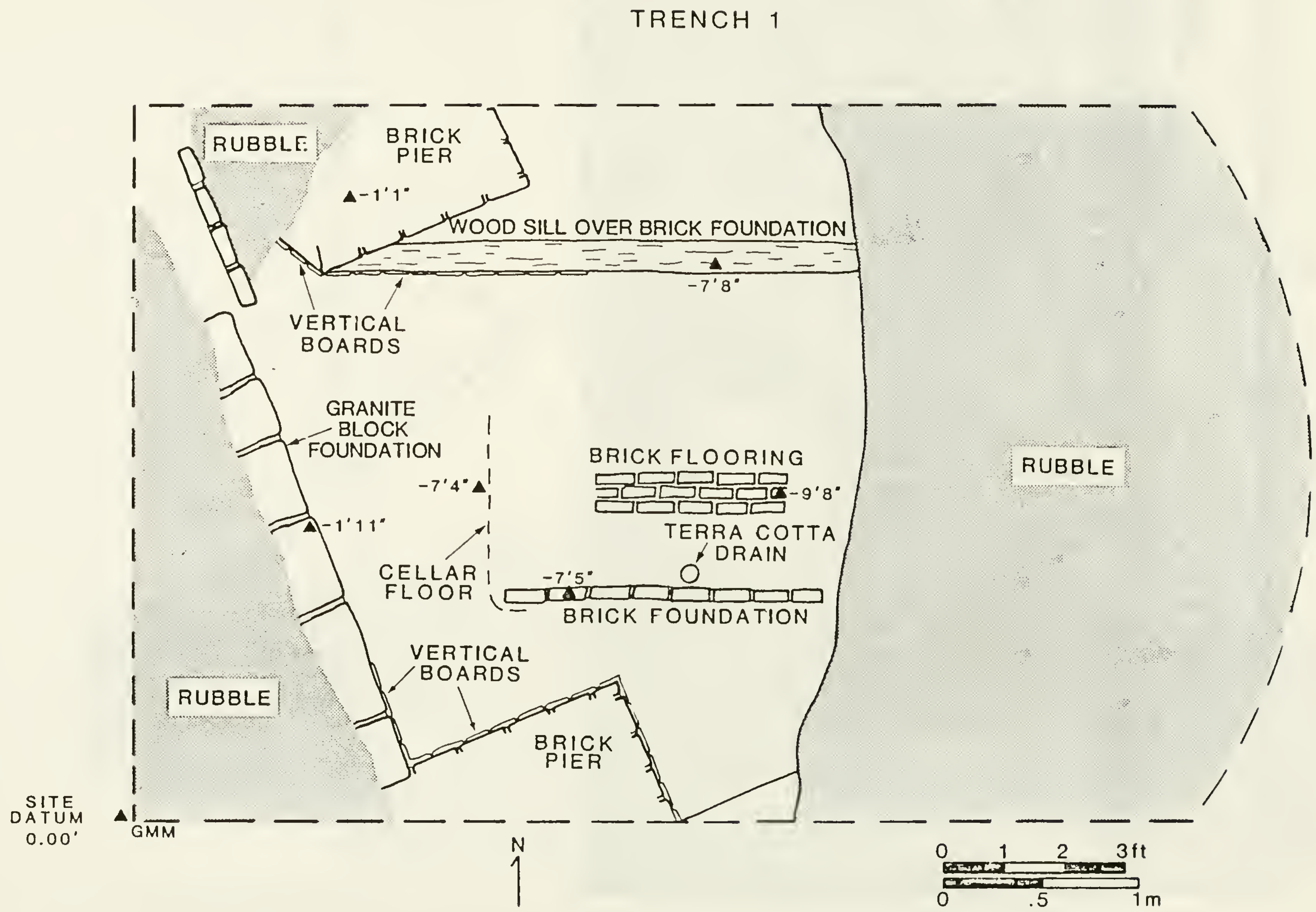


Figure 26. Plan of Trench 1.

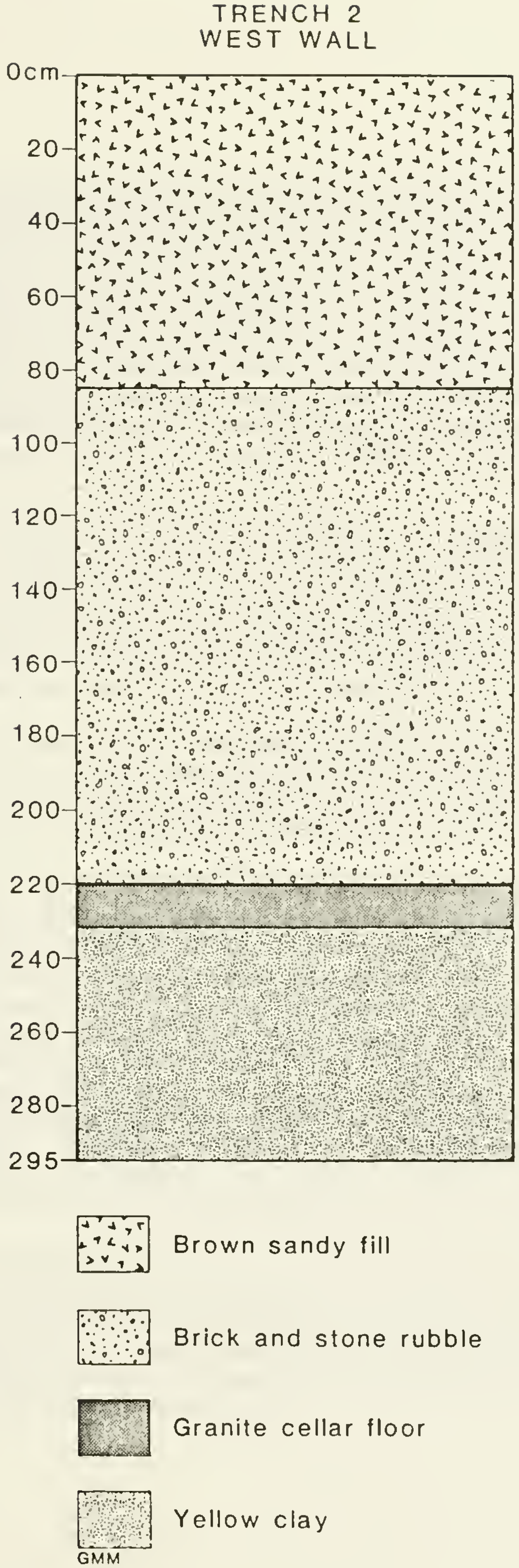


Figure 27. West wall profile of Trench 2.

IV. J Construction

INTRODUCTION

The construction of the Parcel Seven Project needs to be carefully planned and coordinated with the BRA, the MBTA, Boston Water and Sewer Commission, the City of Boston Traffic and Parking Department, and the City of Boston Police Department. Pre-construction meetings will be held with these public agencies to minimize the impact of construction. All means and methods of construction will be analyzed and evaluated and ultimately chosen by the criteria of having the least impact on the surrounding neighborhood.

EXCAVATION AND FOUNDATION CONSTRUCTION

This phase of work is scheduled to occur in the Spring and Summer of 1987. Construction of the basement and foundation will require an excavation extending to the property line adjacent to Blackstone, Hanover and Sudbury Streets. No impact on MBTA operations are expected as a result of construction.

The remnants of basement floors, walls, foundations, as well as abandoned utilities will have to be removed as part of the general excavation. Excavated materials will be properly disposed of off-site.

The earth retention system to be incorporated in the excavation will soldier piles and lagging. Although the driving of piles creates noise, the foundation can be built two to three times faster than a slurry wall system. The time savings can be further enhanced through the addition of a second and third shift. The net gain from incorporating this system is the reduced impact on traffic since the majority of dirt will be stockpiled and hauled during the second and third shift. Since tie backs may be impossible to install along the edge of the subway tunnels, slurry wall construction may be employed in this area.

Since the water table is encountered at approximately 10 feet below the present surface of the site, an instrumentation program will be set in order to monitor site ground water levels. All appropriate permits from Boston Water and Sewer Commission shall be obtained prior to any dewatering.

The air quality will be challenged by the excavation of loose dirt and the movement of vehicles upon dirt surfaces. Due to the density of pedestrian traffic, all necessary mitigating actions will be incorporated to insure that the air quality is not significantly altererd. Site watering will be utilized when the climate and soil types dictate. All of the trucks that shall transport the excavated material shall be covered.

BUILDING STRUCTURE

Construction of the building structure will be done with the use of tower cranes. These cranes will do the majority of the work in order to minmimize the impact of street traffic.

During above grade construction the thru block connection will be used as a staging area. The building lobbies may be also used as staging areas to further minimize the need for occupying on street parking lanes.

Storage of steel, bricks, granite and other building materials will be kept in storage yards and then trucked to the site in a periodic fashion to further reduce the amount of space needed to construct. Said deliveries will be scheduled to avoid the morning and evening rush hours.

Mitigation measures to minimize construction-related impacts will include the following:

Foundation Conditions

- Proper disposal of excavated materials.
- No disruption of MBTA service.
- Coordination with MBTA officials as appropriate.
- Daily engineering surveys to monitor earth retention.

Groundwater

- Monitoring of ground water levels during construction.
- Filtering as part of dewatering process, if necessary.

Traffic

- Elimination of on-street parking to maintain the roadway's carrying capacity.
- Designation of truck routes between site and Southeast Expressway.
- To the greatest degree possible, use of a tower crane rather than a mobile crane, thus avoiding impact to street operations.
- Maintenance of area pedestrian flows during construction, to the degree consistent with public safety requirements.
- Police detail when appropriate.

Air Quality

- Wetting of exposed areas.
- Use of covered trucks.

V. Measures to Mitigate Adverse Impacts

INTRODUCTION

Provided here is a summary of mitigation measures which are proposed to minimize the potential adverse effects of the Parcel 7 Development. A more detailed discussion of these measures is included in each of the impact categories addressed in Section IV. Mitigation measures for construction impacts are included here under a separate heading, but are discussed in Section IV within appropriate impact categories. When mitigation measures require actions by public agencies, the project Proponent is committed to working cooperatively to achieve these objectives.

TRAFFIC AND PARKING

- Enforcement of no-parking regulations on Blackstone Street in the travel lane adjacent to the median.
- Limitation of on-street parking on the southbound side of New Congress Street to off-peak hours.
- Implementation of computer-based signal system in Government Center area.
- Continued evaluation of vehicular operation of the through-block connection.
- Coordination with the Haymarket Pushcart Association to minimize the effect of deliveries on Blackstone Street vehicular activity.

AIR QUALITY

- Encouragement of alternative travel modes, including carpooling, vanpooling and public transit.
- Continued enforcement of State Inspection and Maintenance Program.

TRANSIT FACILITIES

- Utilization of steel transfer girders spanning MBTA tunnels to support foundation of office structure.
- Integration of existing MBTA entrance into the New Congress Street pedestrian arcade.
- Enhancement of MBTA entrance with lighting, signage, and streetscape treatment.

SEWERAGE	o Utilization of a storage system to hold sewage on-site until low-tide periods, during which sewage will be discharged into the public sewer system by an automated pump system. o Provision of separate sanitary and storm drainage lines within all building plumbing in the event that separate sanitary and storm sewers are constructed in the future. o Provision of grease traps within kitchen drainage, and oil/grease traps within parking garage drainage.
VISUAL QUALITY AND URBAN DESIGN	o Continued design development process in accordance with BRA design-review procedures.
WIND	o Use of projecting glass canopy along the New Sudbury, Hanover and Blackstone Street sides of the development divert winds running down the face of the development. o Building undercuts and pedestrian arcade along New Congress Street. o Respond during ongoing design development to any further wind-related concerns.
HAYMARKET PUSHCARTS	o Hose outlets on the Blackstone Street side of the project are for use by vendors during market operation and during clean-up periods. o Investigation of the potential for relocating truck parking spaces from Parcel 7 to a position on traffic islands under the Central Artery. o Mitigation measures to minimize construction-related impacts within the Haymarket and other nearby areas are listed on page V-3. o Glass canopies on Hanover and Blackstone Streets will shelter the vendors from inclement weather.

- Brick and granite paving of walks and Hanover Street will enhance the market's imate.
- No Parcel 7 traffic will exit onto Blackstone Street.
- Continued contact and coordination with the Haymarket Pushcart Association.

ARCHAEOLOGY

- Based on the results of the historical research and the study of existing conditions, a limited program of machine-assisted subsurface testing was conducted on the site. It is concluded that no significant archaeological remains survive on the property and no further archaeological work is recommended for the site.

CONSTRUCTION

- Watering of areas subject to wind erosion to prevent release of dust into the air during construction.
- Provision of a temporary retaining wall around construction site.
- Use of noise mufflers in proper operating condition on construction equipment.
- Construction scheduling to avoid impacts to neighboring uses, to the extent practical.
- No interruption of MBTA service during construction.
- No pile driving within 20 feet of MBTA tunnels.
- Ongoing contact and coordination with MBTA Chief Engineer and other pertinent MBTA departments.
- Routing of construction vehicles to minimize conflict with area traffic and pushcart activities.
- Maintenance of area pedestrian flows during construction, to the degree consistent with public safety requirements.

VI. Technical Appendices

Appendix A	Environmental Notification Form, Determination of Scope, and Comments on the ENF.
Appendix B	Comments by Reviewers
Appendix C	Traffic and Parking*
Appendix D	Air Quality*
Appendix E	Wind*
Appendix F	Economic
Appendix G	Permits Required for the Project

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* Appendices C, D, and E are available for review at the Executive Office of Environmental Affairs' MEPA Unit and at the Boston Public Library. Individual copies of these detailed documents are available on request from Congress 7, Limited Partnership, Suite 1001, 265 Franklin Street, Boston, Massachusetts 02110 (617) 737-1120.

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

KAREN D. GLASSMAN

9/30/83

Sam:

Jamie is scheduled to have breakfast with Rupert Davis and Susan Park of the Boston Preservation Alliance on THursday, October 6.

One of the issues they would like to discuss is Parcel D-7. Would you please either prepare a short briefing paper or give Jamie an update on this subject.

Thanks.

karen

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

SAMUEL G. MYGATT
Executive Director
Environmental Impact Review

#4946

Jamie:

Parcel 7 is the parking lot between Haymarket and Government Center Garage. In 1980 we reviewed an ENF for a 40-story Holiday Inn there, and issued a Scope for an EIR. The project became dormant; no EIR was ever filed.

Last week an ENF was filed for a similar project, 35 stories high. I expect an EIR will be necessary. The Boston Preservation Alliance is welcome to comment and attend the scoping session. It should contact Steve Kaiser (727-5830 .

Attached, for them, are copies of the previous Scope and the new ENF.

Sam

10/3

APPENDIX A
COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS

ENVIRONMENTAL NOTIFICATION FORM

I. SUMMARY

A. Project Identification

1. Project Name Hotel/Office Development at Congress, Hanover Streets and New Sudbury Streets (Boston)

2. Project Proponent Congress 7 Limited Partnership, 167
Address Worcester St., Suite 209, Wellesley
Hills, MA 02181

B. Project Description: (City/~~Town(s)~~) Boston

1. Location within city/town or street address Congress, Hanover and New Sudbury Streets

2. Est. Commencement Date: June, 1984 Est. Completion Date: April, 1986
Approx. Cost $71,000,000.00 Current Status of Project Design: ----8% Complete

* However, schematic design is essentially 100% complete

C. Narrative Summary of Project

Describe project and give a description of the general project boundaries and the present use of the project area. (If necessary, use back of this page to complete summary).

Although designated as an urban renewal parcel by the Boston Redevelopment Authority, the project area is presently used as an open parking lot. The project area is defined by Congress, Sudbury, Blackstone and Hanover Streets and contains approximately 57,900 square feet of area.

The proposed development would include (i) a 464-room hotel (located on the Hanover Street side of the project parcel), with associated meeting rooms, restaurant facilities, and small shops for the convenience of hotel patrons and the general public, (ii) an office building with approximately 81,000 square feet of office space (located on the Sudbury Street side of the project parcel), (iii) a parking garage with a capacity for approximately 270 vehicles and (iv) a sidewalk cafe-style restaurant located on the Congress Street side of the project parcel.

RECEIVED
NOV 14 1986

REFER TO	INITIAL	ANS. BY
		DATE

Copies of this may be obtained from:
Name: Timothy D. Jaroch Firm/Agency: McDermott, Will & Emery
Address: One Post Office Square, Boston, MA 02109 Phone No. (617) 357-0200

THIS IS AN IMPORTANT NOTICE. COMMENT PERIOD IS LIMITED.
For Information, call (617) 727-5830

Use This Page to Complete Narrative, if necessary.

This project is one which is categorically included and therefore automatically requires preparation of an Environmental Impact Report: YES X* NO ____

D. Scoping (Complete Sections II and III first, before completing this section.)

1. Check those areas which would be important to examine in the event that an EIR is required for this pro
This information is important so that significant areas of concern can be identified as early as possibl
order to expedite analysis and review.

	Construction Impacts	Long Term Impacts		Construction Impacts	Lo Te I
Open Space & Recreation			Mineral Resources		
Historical	X	X	Energy Use		X
Archaeological			Water Supply & Use		X
Fisheries & Wildlife			Water Pollution		
Vegetation, Trees			Air Pollution	X	X
Other Biological Systems			Noise	X	
Inland Wetlands			Traffic	X	X
Coastal Wetlands or Beaches			Solid Waste	X	X
Flood Hazard Areas			Aesthetics		X
Chemicals, Hazardous Substances,			Wind and Shadow		X
High Risk Operations			Growth Impacts		X
Geologically Unstable Areas			Community/Housing and the Built		
Agricultural Land			Environment		X
Other (Specify)					

2. List the alternatives which you would consider to be feasible in the event an EIR is required.

N/A

---

* Although no state permits or financial assistance will be sought in connection with the project, the transfer of land from the Boston Redevelopment Authority to the proponent is considered likely to involve the jurisdiction of MEPA.

E. Has this project been filed with EOEA before? Yes X No ______
If Yes, EOEA No. 03646 EOEA Action? Scoping determination, dated Feb. 6, 1980, was issued. Office component and some additional parking have since been addec

F. Does this project fall under the jurisdiction of NEPA? Yes ______ No X and some project rec
If Yes, which Federal Agency? ______________ NEPA Status? has occurred.

G. List the State or Federal agencies from which permits will be sought:

Agency Name	Type of Permit
Boston Redevelopment Authority	Land Disposition Agreement

H. Will an Order of Conditions be required under the provisions of the Wetlands Protection Act (Chap. 131, Section
Yes ______ No XX
DEQE File No., if applicable: __________

I. List the agencies from which the proponent will seek financial assistance for this project:

Agency Name	Funding Amount

At this time the proponent does not intend to seek financial assistance for this project from any agency. The project would be privately financed.

II. PROJECT DESCRIPTION

A. Include an original 8½ x 11 inch or larger section of the most recent U.S.G.S. 1:24,000 scale topographic with the project area location and boundaries clearly shown. Include multiple maps if necessary for large ects. Include other maps, diagrams or aerial photos if the project cannot be clearly shown at U.S.G.S. sc. available, attach a plan sketch of the proposed project. (Please see attached plan)

B. State total area of project: 1.33 acre (57,900 square feet)
Estimate the number of acres (to the nearest 1/10 acre) directly affected that are currently:

1 1. Developed	0 acres	4. Floodplain	0
2. Open Space/~~Woodlands/Recreation~~	1.33 acres *	5. Coastal Area	0
3. Wetlands	0 acres	6. Productive Resources	
		Agriculture	0
		Forestry	0
		Mineral Products	0

* unpaved parking lot

C. Provide the following dimensions, if applicable:
Length in miles N/A Number of Housing Units N/A Number of Stories 35 (Hotel

	Existing	Immediate Increase Due to Pro
Number of Parking Spaces	200	70
Vehicle Trips to Project Site (average daily traffic)	250	2,210
Estimated Vehicle Trips past project site	44,000	2,660

D. If the proposed project will require any permit for access to local or state highways, please attach a sk showing the location of the proposed driveway(s) in relation to the highway and to the general development identifying all local and state highways abutting the development site; and indicating the number of lanes, p ment width, median strips and adjacent driveways on each abutting highway; and indicating the distance to the nearest intersection.

III. ASSESSMENT OF POTENTIAL ADVERSE ENVIRONMENTAL IMPACTS

Instructions: Consider direct and indirect adverse impacts, including those arising from general construct operations. For every answer explain why significant adverse impact is considered likely or unlikely to resu

Also, state the *source* of information or other basis for the answers supplied. If the source of the infor in part or in full, is not listed in the ENF, the preparing officer will be assumed to be the source of the infor Such environmental information should be acquired at least in part by field inspection.

A. Open Space and Recreation

1. Might the project affect the condition, use or access to any open space and/or recreation area?
Yes ______ No __XX__

Explanation and Source:

The project area has been designated as an urban renewal parcel by the Boston Redevelopment Authority and was formerly occupied by one or more buildings. At this time the project area is being used as an open parking lot.

B. Historic Resources

1. Might any site or structure of historic significance be affected by the project? Yes __XX__ No ______

Explanation and Source:

The so-called Blackstone Block, which is a listed historic district, lies across Hanover Street from the project area. However, except for some construction noise and the possibility of minor wind effect, the structures in the Blackstone Block should not be adversely affected by the Project. (Discussions with John Harrell, Boston Landmarks Commission; Joseph Orfant, Massachusetts Historical Commission; and Angus Crowe, Boston Society of Architects.)

2. Might any archaeological site be affected by the project? Yes ______ No __XX__

Explanation and Source:

Tunnels for the MBTA Orange Line and Green Line pass beneath the project area, and a stairway to the Orange Line Haymarket Station has its entryway at one side of the project area. No record exists that anything of archiological significance was uncovered during excavations for MBTA subway construction. (Discussion with William Casey, MBTA Construction Department).

C. Ecological Effects

1. Might the project significantly affect fisheries or wildlife, especially any rare or endangered species?
Yes ______ No __XX__

Explanation and Source:

See explanation at A.1. The project is located within a high density urban area, with no remaining vegetation and no rivers, streams or other water bodies within the project area.

2. Might the project significantly affect vegetation, especially any rare or endangered species of plant?
Yes ______ No X
(Estimate approximate number of mature trees to be removed: None)

Explanation and Source:

See explanation at C.1.

3. Might the project alter or affect flood hazard areas, inland or coastal wetlands (e.g., estuaries, marshes, dunes and beaches, ponds, streams, rivers, fish runs, or shellfish beds)? Yes ______ No XX

Explanation and Source:

See explanation at C.1.

4. Might the project affect shoreline erosion or accretion at the project site, downstream or in nearby co areas? Yes ______ No XX

Explanation and Source:

See explanation at C.1.

5. Might the project involve other geologically unstable areas? Yes ______ No XX

Explanation and Source:

See explanation at B.2. and C.1. No such geological instabilities were encountered during construction of the MBTA subway beneath the project area. (Discussion with William Casey, MBTA Construction Department)

D. Hazardous Substances

1. Might the project involve the use, transportation, storage, release, or disposal of potentially haz substances?
Yes ______ No XX

Explanation and Source:

The project includes only non-industrial commercial development, and no potentially hazardous substances are expected to be employed in connection with the project other than the use of dry cleaning solvents in the event that a dry cleaning facility is included in the project as a service to hotel guests.

E. Resource Conservation and Use

1. Might the project affect or eliminate land suitable for agricultural or forestry production?
Yes ______ No XX
(Describe any present agricultural land use and farm units affected.)

Explanation and Source:

See explanation at C.1.

2. Might the project directly affect the potential use or extraction of mineral or energy resources (e.g., oil, c
sand & gravel, ores)? Yes ______ No XX

Explanation and Source:

See explanation at B.2. and C.1.

3. Might the operation of the project result in any increased consumption of energy? Yes XX No ______

Explanation and Source:
(If applicable, describe plans for conserving energy resources.)

Because the project area is now an open site, the construction of a hotel, office building, parking garage and associated facilities will clearly result in an increase in energy consumption. However, the choice of insulation materials and the design of various systems, including heating, ventilation and air conditioning, is intended to conserve energy and minimize energy consumption and to comply with Article 22 of the State Building Code.

F. Water Quality and Quantity

1. Might the project result in significant changes in drainage patterns? Yes ______ No XX

Explanation and Source:

Drainage is currently handled through the existing drain and storm sewer system in the area, and no significant change would occur during or after construction of the project.

2. Might the project result in the introduction of pollutants into any of the following:
(a) Marine Waters .... Yes X No ______
(b) Surface Fresh Water Body .... Yes ______ No X
(c) Ground Water .... Yes ______ No X

Explain types and quantities of pollutants.

Wastewater from the project would be discharged into the Boston sewer system, which currently affects Boston Harbor.

3. Will the project generate sanitary sewage? Yes XX No ______

If Yes, Quantity: 113,200 gallons per day

Disposal by: (a) Onsite septic systems .... Yes ______ No X

(b) Public sewerage systems .... Yes X No ______

(c) Other means (describe) ______________________________

The estimate of quantity was developed by Cosentini Associates, consulting engineers

4. Might the project result in an increase in paved or impervious surface over an aquifer recognized as an important present or future source of water supply? Yes ______ No XX

Explanation and Source:

See explanation at B.2. and C.1.

5. Is the project in the watershed of any surface water body used as a drinking water supply?

Yes ______ No XX

Are there any public or private drinking water wells within a 1/2-mile radius of the proposed project?

Yes ______ No XX

Explanation and Source:

See explanation at B.2. and C.1.

6. Might the operation of the project result in any increased consumption of water? Yes X No ______

Approximate consumption 170,000 gallons per day. Likely water source(s) City of Boston

Explanation and Source:

The estimate of quantity was developed by Cosentini Associates, consulting engineer

7. Does the project involve any dredging? Yes ______ No XXX

If Yes, indicate:

Quantity of material to be dredged ______________________________

Quality of material to be dredged ______________________________

Proposed method of dredging ______________________________

Proposed disposal sites ______________________________

Proposed season of year for dredging ______________________________

Explanation and Source:

G. Air Quality

1. Might the project affect the air quality in the project area or the immediately adjacent area?
Yes XX No ______

Describe type and source of any pollution emission from the project site. ______

Heating, ventilation and cooling system emissions: carbon dioxide, sulfur dioxide and particulates.
Vehicles emissions in parking garage: carbon monoxide, nitrogen oxide and hydrocarbons.
Dry cleaning facility (if installed for service to hotel guests): vapors from dry cleaning solvents.
Construction-related emissions: dust and other particulates.

2. Are there any sensitive receptors (e.g., hospitals, schools, residential areas) which would be affected by pollution emissions caused by the project, including construction dust? Yes X No ______

Explanation and Source:

It is possible that some emissions caused by the project would affect the residential area of the North End nearest the project. However, the Central Artery, which is itself a source of emissions from vehicular traffic, lies between the project site and the North End.

3. Will access to the project area be primarily by automobile? Yes XXX No ______

Describe any special provisions now planned for pedestrian access, carpooling, buses and other mass tran

A substantial percentage of the access by automobile will involve access by taxicabs. The project will also be serviced by existing MBTA bus routes and by the Orange Line and Green Line Haymarket subway stations. Because of the project's downtown location, many arrivals and departures during daytime hours are expected to be by foot.

H. Noise

1. Might the project result in the generation of noise? Yes XX No ______

Explanation and Source:
(Include any source of noise during construction or operation, e.g., engine exhaust, pile driving, traffic.)

Once operational, the project will not generate any substantial noise, but there will be a certain amount of traffic noise from vehicles going to and from the project. During the construction period, truck traffic, pile driving and structural fabrication work will generate noise.

2. Are there any sensitive receptors (e.g., hospitals, schools, residential areas) which would be affected b noise caused by the project? Yes XX No ______

Explanation and Source:

It is possible that the residential area of the North End nearest the project will be affected by any noise caused by the project. However, the Central Artery, which is itself a source of noise from vehicular traffic, lies between the project site and the North End.

I. Solid Waste

1. Might the project generate solid waste? Yes XX No _____

Explanation and Source:
(Estimate types and approximate amounts of waste materials generated, e.g., industrial, domestic, hospita sewage sludge, construction debris from demolished structures.)

Although there will be no above-ground demolition in connection with the proje some wastes related to construction will be generated, and it is anticipated tha subsurface foundations from prior structures on the project site will have to be demolished. Once operational, the project will generate paper waste and other waste associated with a modern hotel operation, together with waste associated with restaurant, meeting room and garage facilitites. It is estimated that approximately 14 cubic yards of compacted waste will be generated on a daily bas (Estimate provided by Walter Harper of BFI Waste Systems (Boston), a company whic services numerous hotels and office buildings.)

J. Aesthetics

1. Might the project cause a change in the visual character of the project area or its environs?
Yes XX No _____

Explanation and Source:

Because the project area is now open land designated for urban renewal purposes the project will clearly cause a change in the visual character in the project a The height of the hotel building will exceed the height of the existing buildings nearest the project area, but will not exceed the height of certain other large buildings in the nearby area. The hotel building joins those other large buildir in completing the urban frame around City Hall and in screening the Central Arter from City Hall Plaza and Congress Street.

2. Are there any proposed structures which might be considered incompatible with existing adjacent structure in the vicinity in terms of size, physical proportion and scale, or significant differences in land use?
Yes XXX No _____

Explanation and Source:

Although the project area is bordered on all sides by existing streets and is a defined area in itself, the height of the buildings in the nearby Blackstone Bloc will be substantially less than the 35-story hotel structure. However, the hotel structure has been designed so as to keep its mass and scale responsive to nearby buildings. The commercial use of the Quincy Market and Blackstone Block areas seems compatible with the use intended for the project area.

3. Might the project impair visual access to waterfront or other scenic areas? Yes XXX No _____

Explanation and Source:

The hotel structure has been designed as a relatively slender thin tower (only 16 room per floor) so as to minimize any visual impairment. The hotel structure would have only a minimal effect on visual access to the waterfront or any other scenic area. In addition, the hotel structure has been designed to preserve existing visual easements to Old North Church from City Hall Plaza.

K. Wind and Shadow

1. Might the project cause wind and shadow impacts on adjacent properties? Yes XXX No _____

Explanation and Source:

The project includes the high-rise hotel structure, and the structure would cause shadow impacts primarily on the elevated Central Artery and minor impacts on nearby properties. However, no continuous shadowing on those properties is expected. A qualitative study of wind effects will be undertaken by consultants to the proponent.

Agency	No. of Copies
Secretary, Executive Office of Environmental Affairs Leverett Saltonstall Bldg., 20th Fl. 100 Cambridge Street Boston, MA 02202 ATTN: MEPA Unit	3 (including copy suitable for pho copying)
State Clearinghouse 100 Cambridge Street 14th Floor Boston, MA 02202	1
Attorney General State House Room 373 Boston, MA 02133	1
Massachusetts Historical Commission 294 Washington Street Boston, MA 02108	1
State Archaeologist 8 North Main Street - Bronson Museum Attleboro, MA 02703	1
Department of Environmental Quality Engineering 1-11 Winter Street Boston, MA 02108	2
DEQE Met. Boston/Northeaster Regional Office 323 New Boston Street Woburn, MA 01801	1
Clerk City of Boston Boston City Hall Boston, MA 02201	1
Department of Community Affairs One Ashburton Place Boston, MA 02108	1
Executive Office of Transportation and Construction One Ashburton Place, Room 1610 Boston, MA 02108	1
Department of Environmental Management Bureau of Solid Waste Disposal 100 Cambridge Street Boston, MA 02202	1

Agency	No. of Copies
Division of Hazardous Waste Mobile Source Planning Brance 1-11 Winter Street Boston, MA 02108	1
Department of Public Works Environmental Section 100 Nashua Street Boston, MA 02114	1
Massachusetts Bay Transportation Authority 50 High Street Boston, MA 02110	1
Boston Redevelopment Authority One City Hall Plaza Boston, MA 02201	1
Massachusetts Aeronautics Commission General Aviation Terminal Boston Logan Airport East Boston, MA 02128	1
Metropolitan Area Planning Council 110 Tremont Street Boston, MA 02111	1
DPW, District 8 400 D. Street Boston, MA 02210	1
Metropolitan District Commission 20 Somerset Street Boston, MA 02108 ATTN: Environmental Planning Office	1
Division of Air Quality Control 1-11 Winter Street Boston, MA 02108	1
Massachusetts Port Authority 99 High Street Boston, MA 02110	1

IV. CONSISTENCY WITH PRESENT PLANNING

A. Describe any known conflicts or inconsistencies with current federal, state and local land use, transp open space, recreation and environmental plans and policies. Consult with local or regional planning a where appropriate.

The project site is in a designated urban renewal area under the control of the Boston Redevelopment Authority. After consultation with design and urban planning personnel of the BRA, the proponent is not aware of any conflict or inco sistencies with current federal, state or local land use, transportation, open space, recreational or environmental plans and policies. However, modifications of urban renewal plan controls as to building height will have to be made to accommodate the proposed hotel structure.

V. FINDINGS AND CERTIFICATION

A. The notice of intent to file this form has been/will be published in the following newspaper(s):

(Name) Boston Globe (morning and evening editions) (Date) September 16, 1983

B. This form has been circulated to all agencies and persons as required by Appendix B.

CONGRESS 7 LIMITED PARTNERSHIP

9/30/83 By:

Date

Signature of Responsible Officer or Project Proponent

David E. Nassif, General Partner

Name (print or type)

Address 167 Worcester Street, Suite 209
Wellesley Hills, MA 02181

Telephone Number (617) 431-1030

9/30/83

Date

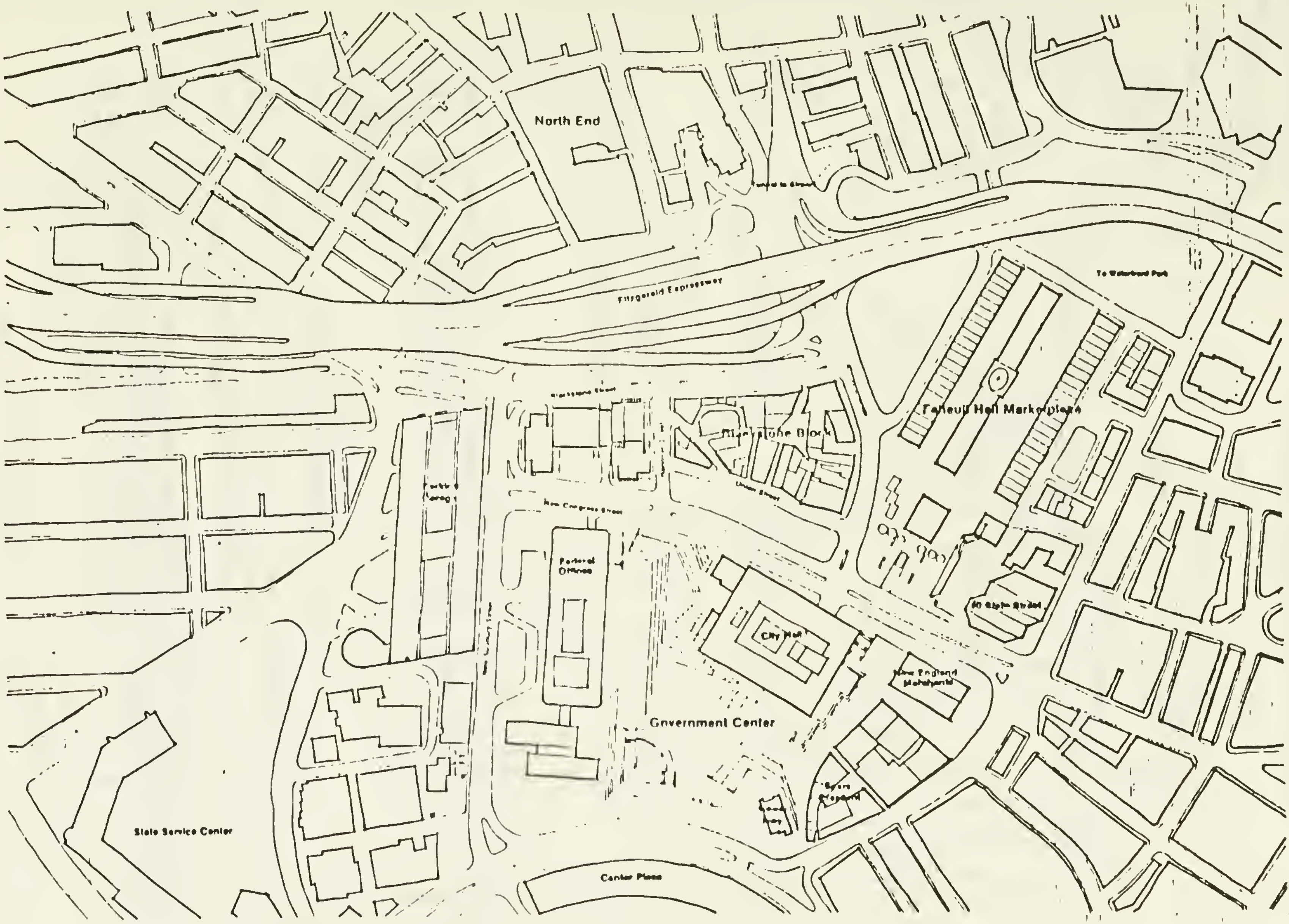
Signature of person preparing ENF (if different from above)

Timothy D. Jaroch, Esq.

Name (print or type)

McDermott, Will & Emery
Address One Post Office Square
Boston, MA 02109

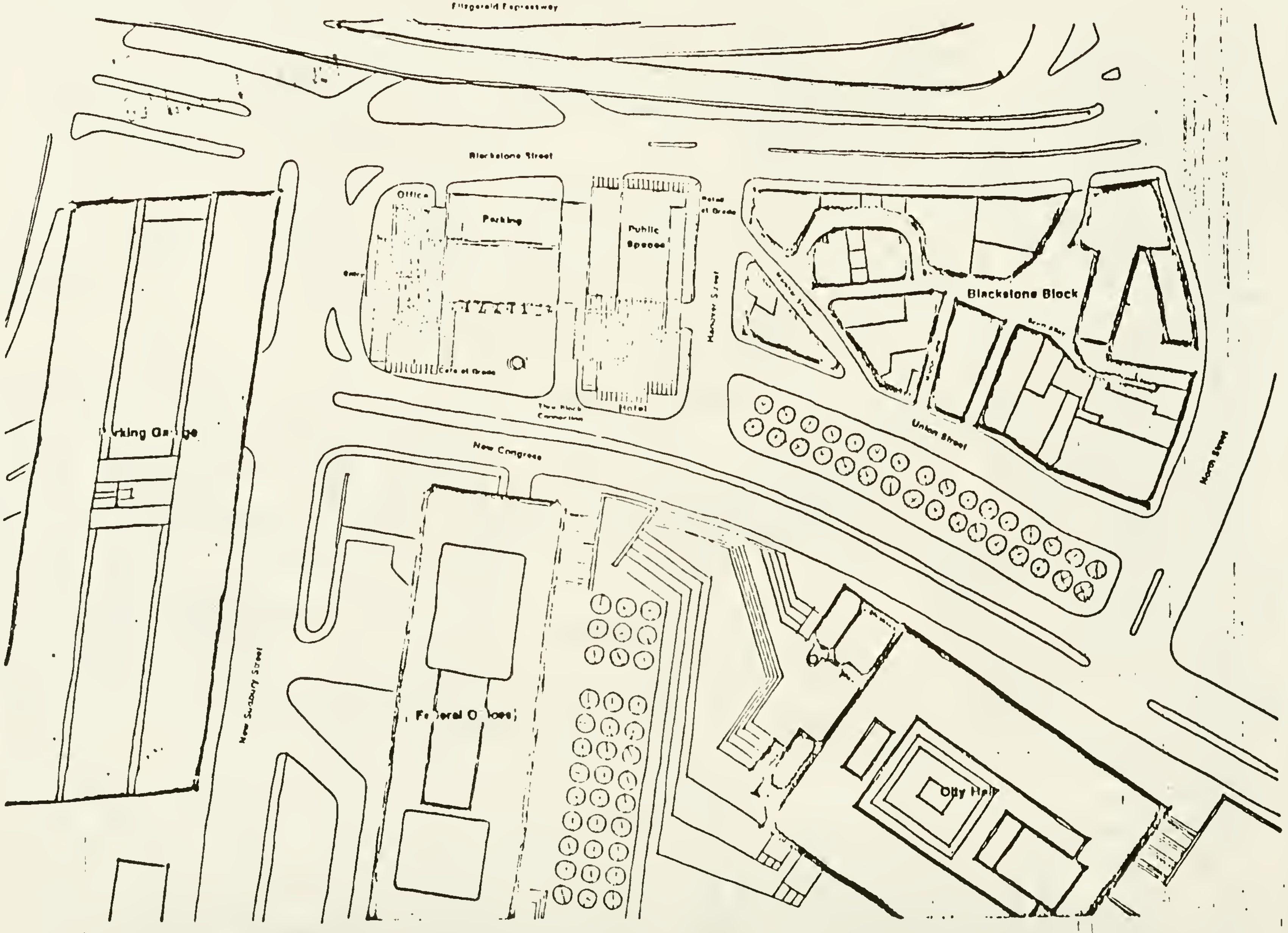
Telephone Number (617) 357-0200



Cambridge Seven Ass
[illegible]

Holiday Inn

Area Plan



Cambridge Seven Asso

Holiday Inn

Site Plan

Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

MICHAEL S. DUKAKIS
GOVERNOR

JAMES S. HOYTE
SECRETARY

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS ON THE SCOPE FOR THE ENVIRONMENTAL IMPACT REPORT

PROJECT NAME : Holiday Inn Hotel plus office building

PROJECT LOCATION : Congress and Hanover Streets, Boston

EOEA NUMBER : 4946

PROJECT PROPONENT : Congress 7 Limited Partnership

DATE NOTICED IN MONITOR : October 7, 1983

Pursuant to M.G.L., Chapter 30, Section 62A and 10.04(9) of the Regulations Governing the Implementation of the Massachusetts Environmental Policy Act, I hereby determine that the above referenced project does require the preparation of an Environmental Impact Report.

ALTERNATIVES

(1). No-build. Existing conditions for comparison

(2). Hotel and office complex, with tower close to Congress Street

(3). Hotel and office complex, with tower set back from Congress Street

The discussion of alternatives should include a description of alternative site plans previously considered, including the original 1980 proposal for a hotel without office (EOEA # 03646), and the reasons why they were modified or not selected.

VISUAL/AESTHETICS/HISTORICAL

The effects of the hotel and office buildings on the visual environment should be presented in graphic form where possible. Consideration should be given to the closeby visual relationship of the building mass and external architecture to the adjacent Blackstone Block, as well as the more distant views of the tower in terms of existing open views, both from the street and from nearby buildings. The EIR should indicate which views now existing will be blocked out for pedestrians and for representative occupants of nearby buildings. Coordination with the Mass Historical Commission and local architectural/preservation groups is encouraged.

[illegible]

Special ways of shielding or handling exterior design of the parking garage are important. The Government Center Parking Garage is not an aesthetic success, and the Hotel/office project must try to be more successful.

[illegible]

An archeological survey should be prepared for those parts of the project site which are substantially undisturbed by tunnel construction. The detailed methods of initial test pit sampling and additional excavations should be resolved through discussions with the Mass. Historical Commission.

[illegible]

SHADOWS

Although the hotel tower is quite slender, it will cast some shadow onto adjacent properties, as well as its own plaza. The extent and duration of this shadow condition should be described in the EIR. The office building, although lower in height, may cast a shadow on the existing gloomy area under the Government Center parking garage. What these impacts are and how they might be affected by possible redevelopment work on the Government Center Garage should be explained.

WIND

[illegible]

The effect of the tower location and the massing of the base of the buildings should be evaluated in terms of additional wind impacts on pedestrians now crossing from Haymarket to Congress Street and for pedestrians/shoppers in the pushcart area of Hanover Street. A wind tunnel model may be necessary to predict approximate wind magnitudes, and wind standards for the market area will be needed. The method of wind analysis planned should be discussed with EOEA and the BRA.

*

The EIR should present methods of building and plaza design which will reduce pedestrian level winds.

Full daily in-out

TRAFFIC, PARKING AND PEDESTRIANS

The EIR should include an assessment of both existing traffic conditions around the site, include daily and peak hour trips generated by the existing parking lot. Additional traffic resulting from the office and hotel project should be included for the future traffic assessment. Modifications to site driveways should be described, including the implications of one-way or two-way flows on the access roads. The potential for a median break in Congress Street should be evaluated.

Access routes to and from the site should be described, and the directional split of traffic assigned to these routes. The effects of the Hotel operation with Friday functions of the open marketplace (with Hanover Street closed) should be included in the analysis. In this case, traffic impacts as far as and including North Street should be addressed.

A parking analysis should be provided to indicate how the users of the Hotel and office building will arrive on site (taxi/transit/drive, etc.) and how many cars will be parked on-site and how many off-site.

Proposed taxi access and waiting areas should be indicated and their functional impacts evaluated. Mitigation to reduce the number of vehicle trips (from individual cars or taxis) should include shuttle buses or limousine services.

Pedestrian flow in the area is a critical factor, and the EIR should indicate the directions and volumes of existing pedestrian flows, as well as pedestrian flows after development. Pedestrian flow between North Station and Government Center, and to the Bulfinch Triangle area, as well as to the North End via Hanover and Washington Streets should be assessed. Any conflicts with traffic should be identified, and mitigating actions proposed.

TRANSIT IMPLICATIONS

Part of the new construction will occur over existing MBTA Orange Line and Green Line tunnels. Current plans anticipate that some new structural work will be necessary in the Green Line station for building footings. The EIR should describe the design elements of this work, the duration and impacts of construction, and all reasonable methods of avoiding disruption to Green Line operations or passengers using the platform areas.

SEWERAGE

The issues of sewage generation and Boston/MDC system capacity should be described and evaluated, including the potential for sewage holding tanks and I/I removal, as noted in the October 18, 1983 letter of the MDC Sewerage Division.

infiltration inflow

leaking pipes

put in projections;

existing studies [illegible]

SPECIAL ISSUES : PUSHCARTS AND THE HANOVER/BLACKSTONE SHOPPING AREA

The special nature of the pushcart and open market areas requires that much consideration be provided for these functions in final design an for construction periods. Provisions for maintaining pedestrian flows, keeping dust under control, not unduly worsening wind conditions, and avoiding detrimental visual/shadow impacts on the area should be discussed

REPORT FORMAT

The report should include a well-written text with good graphics. Technical data and calculations should be presented in a technical appendix. The ENF and this scope should also be printed in the appendix section. The report should include an index and should be printed on both sides of the paper for compactness and readibility.

CIRCULATION

In addition to agencies specified in the MEPA regulations, copies of the EIR should be sent to the Mass. Historical Commission, the Boston Landmarks Commission, the Boston Preservation Alliance, the Boston Society of Architects, the Pushcart Association, and the Downtown North Association.

DATE

JAMES S. HOYTE, SECRETARY

Skidmore, Owings & Merrill

334 Boylston Street
Boston Massachusetts 02116
617 247 1070

Karen Alschuler, Associate Partner

May 21, 1984 (Revised June 12, 1984)

Stephen Kaiser, Principal Civil Engineer
Massachusetts Environmental Protection Agency
100 Cambridge Street, 20th Floor
Boston, Massachusetts 02202

RECEIVED
JUN 27 1984
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

RE: Parcel 7 Redevelopment, Boston, MA

Dear Steve:

I am writing to confirm our understanding of your requirements under the scope of work issued for the Parcel 7 Draft EIR. This understanding is based upon two meetings held with you where we discussed certain clarification as noted below. The first meeting was on December 6, 1983 with Tim Jaroch and Rich Hangen. We hoped to begin our EIR work soon thereafter. However, it ended up that almost five more months were needed for the developer to reach agreement on certain key issues with the Boston Redevelopment Authority. Since we are now ready to move ahead expeditiously on the EIR, a second meeting was held with Tim Jaroch and myself on May 17, 1984 to be sure that the understanding that we took away from the December 6 meeting is still accurate. Based upon these two meetings, the following are clarifications that we feel were agreed to:

Alternatives

The description of alternatives will include a review of various height and massing alternatives previously reviewed by the development team. Over the last five months since the MEPA scoping, review meetings with the BRA have resulted in their approval of a design with the tower facing on Congress Street. Therefore, they are no longer pressing for the review of a tower along Blackstone Street as was the case five months ago. We will, however, review all three alternatives as you have specified in the scope to allow a visual quality comparison of our proposed plan with such an option.

Traffic, Parking and Pedestrian

1. The study area will be bounded by: New Chardon Street, Congress Street, North Street and Blackstone Street.

2. Five intersections will be counted and analyzed for traffic impacts. These intersections are: Sudbury at Congress; Sudbury at Blackstone; North Street at Congress; North Street at Blackstone; and New Chardon at Congress Street.

3. The baseline traffic volume will be measured for a Friday when the Haymarket is operating. This baseline will represent the condition to be used for comparison of alternative project traffic impacts.

4. Project impacts on parking have not been specifically called for in the scope, other than an identification of how many parking spaces will be used on and off-site by project-generated demands. In the case of off-site parking demands, it will not be necessary to identify locations where vehicles will park, only that they are parking off-site.

5. If hotel trip generation is to be modified by an analysis of available parking in the area, it will be sufficient to use available City of Boston parking data, which is representative of a typical weekday. It will not be necessary to collect parking data to be representative of a Friday market day situation.

Transit Implications

No change.

Sewerage

"I/I removal" noted in the scope refers to infiltration/inflow. What is requested by MEPA is a review of existing studies of infiltration and the potential for limiting infiltration in downtown Boston. The objective is to put in perspective the new sewerage to be added by Parcel 7 development in light of potential to add capacity to the system by eliminating storm water which currently flows into the sewerage system. No new studies of this issue would be required.

Visual, Aesthetics, Historical

1. The analysis of views should include two to four views of the site to demonstrate changes anticipated.

2. Archaeological studies can be completed in two parts, with historic research and testing plans drawn up now and actual testing completed as a condition of the Final EIR approval, is such an approach is acceptable to the Massachusetts Historical Commission.

Air Quality

Maximum 1-hour and 8-hour CO concentrations will be predicted at up to five (5) intersections in the project area using the EPA MOBILE-2 emissions program and the EPA Volume 9 intersection model. Calculations will be made for 3 cases:

1. Existing case
2. Design year No-Build case
3. Design year Build case

The first task will involve meeting with DEQE to finalize the technical assumptions including the location of sensitive receptors at the intersections. Predicted CO concentrations plus background will be compared to the NAAQS. If violations are predicted to occur, changes to intersection operation or other mitigation measures will be recommended, and the analysis will be revised to reflect these changes.

Wind

Wind studies completed for the Draft EIR will constitute an analysis of site conditions, a description of anticipated wind impacts on-site and off-site, and recommended mitigation actions. No wind tunnel study will be required unless the qualitative wind analysis suggested the need for such a step. If needed, this can then be included in a Final EIR. A qualitative discussion of anticipated variations in the predicted wind conditions with a tower along Blackstone Street will be included.

Shadows

Shadow impacts of the proposed scheme will be thoroughly analyzed including effects of the lower portions of the complex as well as the high tower. Shadow effects of the alternative tower location along Blackstone Street will be reviewed for incremental differences in effect on the North End residential neighborhood.

Thank you for squeezing a meeting Thursday into your busy schedule. We appreciated the chance to review these issues once more before we begin the EIR analyses.

Very truly yours,

SKIDMORE, OWINGS & MERRILL

Karen B Alschuler

Karen B. Alschuler
Associate Partner

Concurred by:

Stephen Kaiser
Principal Civil Engineer
Massachusetts Environmental Protection Agency

Date June 28, 1984

KBA:sk
3355A:95-98

cc: Timothy D. Jaroch
Robert M. Kaye
Harris Band
Richard E. Hangen
Richard Mertens, BRA

McDERMOTT, WILL & EMERY
A PARTNERSHIP INCLUDING PROFESSIONAL CORPORATIONS

ONE POST OFFICE SQUARE

BOSTON, MASSACHUSETTS 02109

617/357-0200

TELEX 951-324 MILAM-BSN

111 WEST MONROE STREET
CHICAGO, ILLINOIS 60603
312/372-2000

700 BRICKELL AVENUE
MIAMI, FLORIDA 33131
305/358-3500

FIRST NATIONAL BANK BUILDING
SPRINGFIELD, ILLINOIS 62701
217/522-7200

1850 K STREET, N.W.
WASHINGTON, D.C. 20006
202/887-8000

IMOTHY D. JAROCH

RECEIVED
OCT 04 1983
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

October 4, 1983

Samuel Mygatt, Executive
Director
MEPA
100 Cambridge Street
20th Floor
Boston, MA

Re: Proposed Development of Parcel 7, Government Center Urban Renewal Area, Boston, Mass. (EOEA No. 03646)

Dear Sam:

As a follow-up to our telephone conversation last Friday, I am enclosing some photos and additional materials showing my client's proposed Parcel 7 project. As you can see, the project is substantially the same as when the previous Environmental Notification Form was filed for Parcel 7 in 1979. The principal modifications to the 1979 design are (i) the inclusion of a small office building on the New Sudbury Street side of the site, (ii) the addition of a through-block connection between Congress Street and Blackstone Street and (iii) a reduction in the height of the hotel by three stories (with an accompanying reduction of about 36 hotel rooms).

The through-block connection should materially improve the ingress and egress to the hotel and will mitigate the effect of traffic to and from the site. Access to the parking garage and the hotel's drop-off and loading entrance will flow from the through-block connection, rather than from Hanover Street or Congress Street.

Last week the project architect and I met with Angus Crowe (representing the Boston Society of Architects), John Harrell of the Boston Landmark's Commission and Joseph Orfant of the Massachusetts Historical Commission. All three of them seemed favorably impressed by the project concept and design and the care which has been taken to have the project fit as comfortably as possible with the Blackstone block of historical buildings. In the process of our discussions, Mr. Harrell and Mr. Orfant expressed their feelings that we should investigate the possibility of a cut in the Congress Street median strip in the area near the hotel. Both of them seemed to feel that such a cut would virtually eliminate vehicular traffic which would otherwise travel down Congress Street to the busy North Street intersection and then swing back on either Congress Street or Union Street to get to the hotel. We are willing to investigate the feasibility of such a cut in the Congress Street median strip, although there has been opposition in the past at the BRA to any such step.

I would be pleased to meet with you at your convenience to discuss any issues which you feel may be involved in the environmental scoping for the proposed project.

Thank you for your cooperation.

Respectfully,

Tim

Timothy D. Jaroch

TDJ/co
Enclosures

BY HAND

MAPC

Metropolitan Area Planning Council

110 Tremont Street Boston, Massachusetts 02108 (617)-451-2770

Serving 101 Cities & Towns in Metropolitan Boston

DATE: October 14, 1983

I.D. #: ENF-84-4

TO: Geoffrey Boehm

COMMUNITY: Boston

Enclosed is a description of the project referenced below.

The Council requests that you consider whether this report adequately describes the project's impact upon your community and addresses significant environmental benefits and potential damages.

PROJECT TITLE: Hotel/Office Development

THE COUNCIL HAS ONLY 20 CALENDAR DAYS TO FILE COMMENT WITH E.O.E.A. TO MEET THIS DEADLINE, YOUR COMMENTS MUST BE RECEIVED AT THE MAPC BY October 24, 1983

☐ ADEQUATELY DESCRIBES ENVIRONMENTAL IMPACTS

☒ MERITS FURTHER ENVIRONMENTAL STUDY

☒ NEED MORE INFORMATION

EXPLANATORY COMMENTS: Relating to Section III, B.2, please see the attached commen
ne City of Boston Environment Dept. is in disagreement with the applicant's statement that
archaeological significance would be uncovered. The City of Boston Air Pollution Control
mmission within The Environment Dept. is requesting a new scoping session because of the
aterial changes of the project since the original application in 1980. Specifically, the
ncerns are with air quality (CO,HC) related to the garage and traffic in the adjacent are
r quality (construction impacts) including compliance with city and state regs. on air ar
ise, timing with other major projects under construction and in the future, the need for
re hotel rooms and office space, impacts on Haymarket activities, and many more concerns.
mpliance with the Parking Freeze. The explanation in Section III, G.2 & H.2 is not accept
conclusion, a new scoping session must be scheduled and a full indepth environmental imp
atement should be required, to address the numerous concerns mentioned and those concerns
t mentioned because of more information that is required.

SIGNATURE:

DATE: October 24, 1983

Elizabeth A. Cransfield, President   William C. Sawyer, Vice-President   Frank E. Baxter Secretary   Patricia A. Brady Trea

The Commonwealth of Massachusetts
Metropolitan District Commission
20 Somerset Street, Boston 02108

SEWERAGE DIVISION

October 18, 1983

James S. Hoyte, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

RECEIVED
OCT 19 1983
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

Attention: MEPA Unit

Subject: Hotel/Office Development at Congress, Hanover, and New Sudbury Streets, Boston

Dear Secretary Hoyte,

The Metropolitan District Commission Sewerage Division has reviewed the Environmenta Notification Form for the proposed Hotel/Office Development and wish to make the following comments:

1. Section I, G. Sewer Extension permits must be received from the Massachusetts Division of Water Pollution Control on any project generating over 2,000 gallons per day of sewage.

2. Section III, F. (3). Due to the large amount of sewage being generated by the proposed project an investigation of the effect of the increased loading on the local and MDC sewerage systems should be an evaluation of alternative sewage disposal methods such as on-site treatment or holding tanks. These methods could then be compared to the environmental impacts associated with transport and treatment through the public sewerage systems.

3. The sewage flow from this development will be discharged to the local Boston system and eventually to the MDC Deer Island Sewage Treatment Plant for disposal. Due to change in regulations concerning infiltration/inflow now being prepared by D.E.Q.E., sewer connection permits effecting the MDC system are now being more strictly enforced by the Division of Water Pollution Control and Boston may be required to perform I/I corrections before this project is allowed to commence.

Very truly yours,

Jean M. Haggerty

Jean M. Haggerty
Director, Project Planning
and Management

JMF/ve

Boston Water and
Sewer Commission

10 Post Office Square
Boston, Massachusetts 02109
617-426-6046

RECEIVED

OCT 20 83

OFFICE OF THE SECRETARY
OF ENVIRONMENTAL AFFAIRS

October 19, 1983

Secretary, Executive Office
of Environmental Affairs
Leverett Saltonstall Building
20th Floor
100 Cambridge Street
Boston, MA 02202

Attention: MPEA

Re: ENF - Hotel Office Development at
Congress, Hanover Streets and New Sudbury Streets
(Boston)

Gentlemen:

The Commission has reviewed the Environmental Notification Form for the above-referenced project and we have the following comment.

Section F3 indicates that the project will generate 113,200 gallons of sanitary sewage per day. This sanitary flow will be tributary to the existing East Side Interceptor. Because of surcharged conditions in the ESI and in order to abate overflows into Boston Harbor all connections to the ESI which contribute more than 10,000 gallons per day will require a storage tank. All discharges will be made at periods of low tide. A sanitary sewer study is required to be submitted to the BWSC for approval.

Very truly yours,

Michael O'Neill

Michael O'Neill, P.E.
Division Engineer

MGO'N:mhw

MAPC

Metropolitan Area Planning Council

110 Tremont Street Boston, Massachusetts 02108 (617)-451-2770

Serving 101 Cities & Towns in Metropolitan Boston

October 25, 1983

The Honorable James S. Hoyte, Secretary
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

Attention: MEPA Unit

Project Identification:

Project Name: Hotel/Office Development — EOEA#: 4946

Project Proponent: Congress 7 Limited Partnership — MAPC#: ENF-84-4

Location: Boston, Massachusetts — Received: 10/14/83

Dear Secretary Hoyte:

In accordance with the provisions of Chapter 30, Section 62, of the Massachusetts General Laws, the Council has reviewed the Environmental Notification Form identified above and offers the following comments:

1. ____ Environmental Notification Form adequate; no Environmental Impact Report should be required.

2. ____ Before a determination can be made as to whether or not an Environmental Impact Report should be required, additional information should be provid on ( ) probable environmental impacts, ( ) alternatives to proposed acti and/or ( ) measures proposed to mitigate probable impacts.

3. X An Environmental Impact Report ( ) should be required, (x) is categorical required.

4. X Additional comments are attached.

Please see comments of Boston Representative requesting rescoping.

Very truly yours,

Jonathan G. Truslow
Deputy Executive Director/
Director of Planning

cc: Geoffrey Boehm, MAPC Representative, Boston
Alfred Howard, MAPC Representative, BRA
David E. Nassif, Congress 7 Limited Partnership
Michael Oman, MAPC Staff

Elizabeth A. Bransfield, President William C. Sawyer, Vice-President Frank E. Baxter, Secretary Patricia A. Brady, Trea

Executive Director: Alexander V. Zaleski

The Commonwealth of Massachusetts
Department of Environmental Quality Engineering
Metropolitan Boston - Northeast Region
323 New Boston Street, Woburn, MA 01801

ANTHONY D. CORTESE, Sc.D.
Commissioner
727-5194

RECEIVED
[illegible] 2[illegible]
OFFICE OF THE SECRETARY
OF ENVIRONMENTAL AFFAIRS

M E M O R A N D U M

TO: James S. Hoyte, Secretary
Executive Office of Environmental Affairs

FROM: Michael J. Maher, Air Quality Section Chief HoB for

DATE: October 25, 1983

SUBJECT: Hotel/Office Development at Congress, Hanover Streets and New Sudbury Streets, Boston, MA EOEA# 4946

This office has reviewed the environmental notification form filed for the proposed Hotel/Office Development and offers the following comments for your consideration.

1. As stated in our attached December 1979 memorandum and March 1980 letter in reference to a similar project previously plaaned for this area, an analysis of the air quality impacts needs to be completed. The proponent should consult DAQC for modeling parameters.

2. The proponent should suggest measures to alleviate dust and noise nuisance conditions which may occur during and after construction. Such measures must comply with DEQE regulations 310 CMR 7.09 and 7.10.

3. The proponent must submit formal plans to the Department and receive Departmental approval for any fossil fuel burning facility with a capacity greater than 3MM BTU or any incinerator proposed for this development as per DEQE regulation 310 CMR 7.02.

Please contact Heidi O'Brien should you have further questions.

attachment

MASSACHUSETTS
HISTORICAL
COMMISSION

COMMONWEALTH OF MASSACHUSE
Office of the Secretary of State

294 Washington Street
Boston, Massachusetts
02108
617-727-8470

MICHAEL JOSEPH CONNOLLY
Secretary of State

October 26, 1983

Secretary James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

ATTN: MEPA Unit

RE: Hotel/Office Development at Congress, Hanover, and New Sudbury Streets,
Boston, MA EOEA #4946

Dear Secretary Hoyte:

Staff of the Massachusetts Historical Commission have reviewed the Environmental Notification Form for the proposed project listed above.

The proposed project area, also known as Parcel 7, is immediately adjacent to the Blackstone Block, an historic district which is included in the National Register and State Register of Historic Places and is a city landmark.

As noted in the Environmental Notification Form, Massachusetts Historical Commission staff reviewed preliminary design of the hotel several years ago. The basic massing and location of the project elements appear not to adversely affect the character of the adjoining Blackstone Block, a district listed in the National Register of Historic Places. The lower elements are located adjacent to the district and a high-rise guest room tower is situated away from the historic buildings. MHC requests continuing design review as a part of the scope of an EIR, in particular for materials and design details, so that impacts to the Blackstone Block will be minimized.

Contrary to the ENF's statement concerning archaeological resources, the propose project area is considered to possess a high potential for the presence of significant archaeological deposits, especially in the eastern portion of the project area. The MBTA tunnels located in the western portion of the project area have probably destroyed the archaeological deposits there. However, in the eastern portion, subsurface disturbance appears to have been confined to the first 8 fee below grade where the former 19th and 20th century buildings had stood. Archaeological investigations previously conducted within the adjacent Blackstone Block have made important discoveries below 8 feet pertaining to the early Colonial and early American settlement there in the 1600s and 1700s.

Early historic maps of Boston (1696 and 1722) depict the project area on the edge of the Colonial Mill Pond. This area is known to have supported a water-powered mill and several other buildings, probably used for commercial and residential purposes.

Thus, given the shallow depth of more recent disturbance and the evidence shown on historic maps, the eastern portion of the project area is likely to yield significant archaeological remains important to understanding the early history of Boston as thriving Colonial city and center of commerce and trade.

MHC requests that an archaeological survey of the project area be included in the scope of the project's EIR as well as design review of the proposed building in compliance with MEPA and Chapter 152 of the Acts of 1982 (950CMR 71). The goal of the survey should be to locate and identify significant archaeological resources within the project area. The survey should include historic documentary research and field testing.

If you should have any questions concerning this review or require further assistance, please feel free to contact Joseph Orfant or Brona Simon at this office.

Sincerely,

Valerie Talmage

Valerie A. Talmage
Executive Director
Deputy State Historic Preservation Officer
State Archaeologist
Massachusetts Historical Commission

VAT/hi
xc: Timothy D. Jaroch, McDermott, Will & Emery
Robert Ryan, BRA
Marcia Meyers, BLC

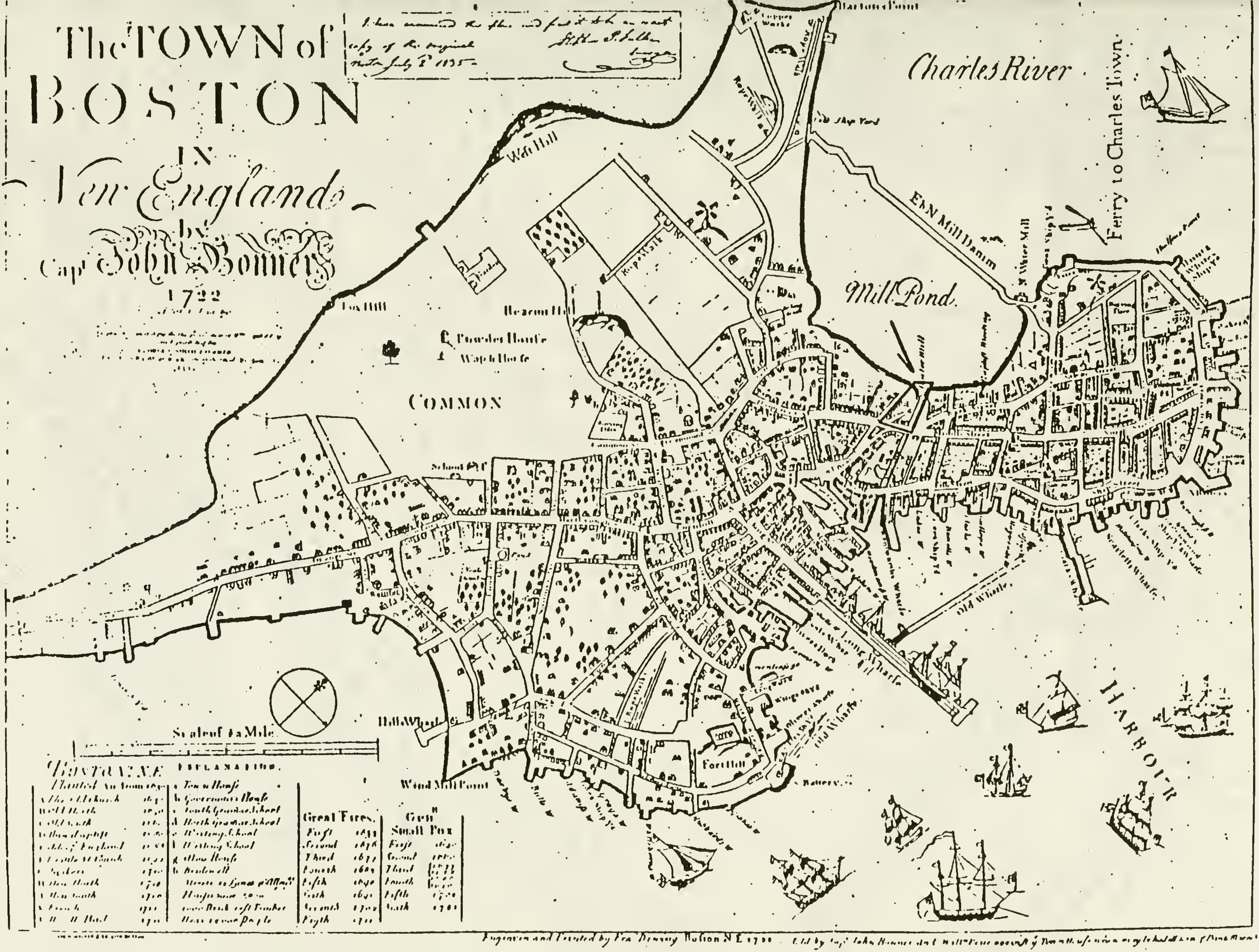
RE: ENF-84-4, HOTEL/OFFICE DEVELOPMENT, PARCEL 7.

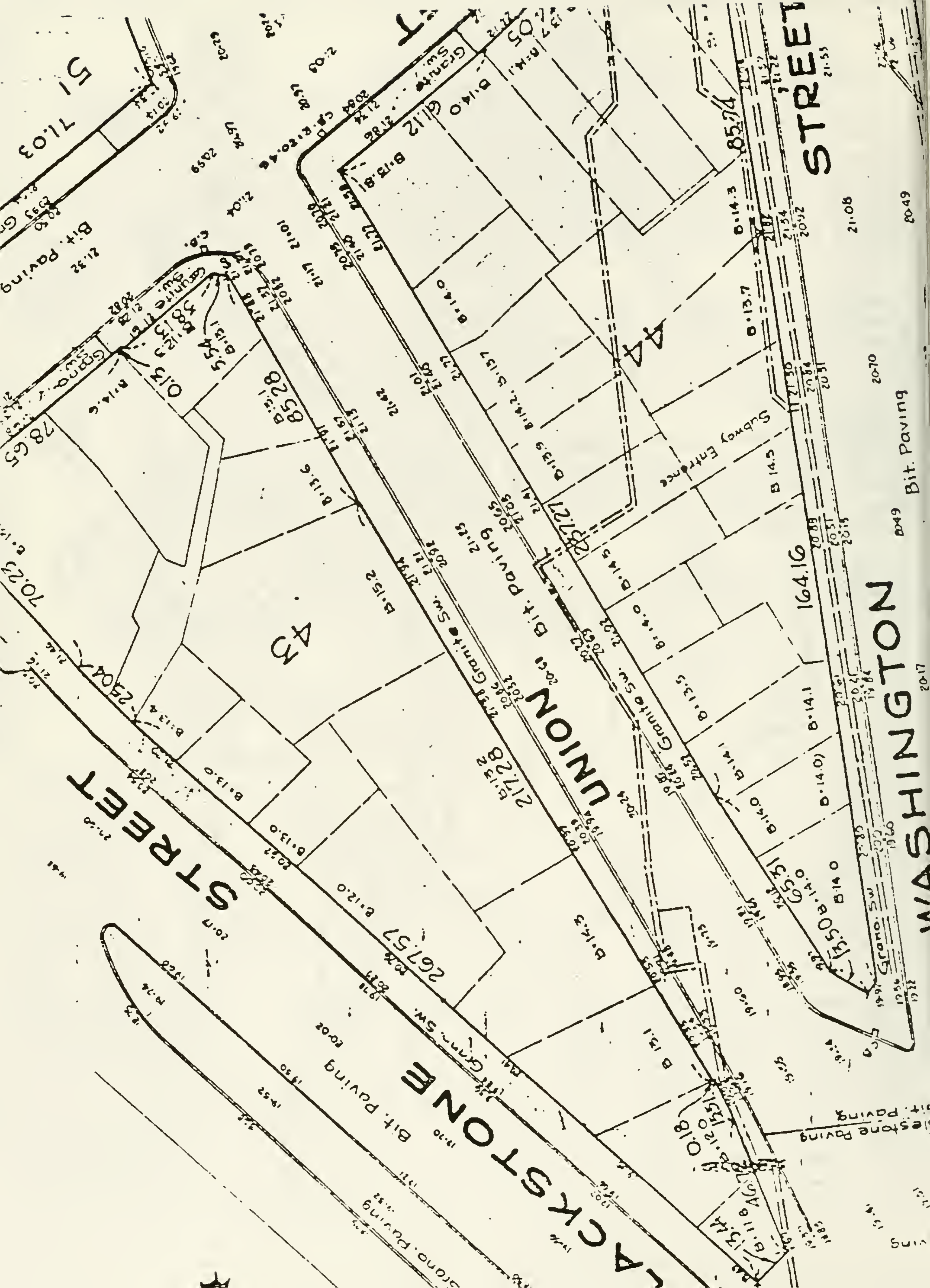
The parcel in question represents an archaeological property of great significance. It lies within the area of the original Shawmut Penisula and as such was part of Boston's initial settlement. The parcel's location is outlined on Bonner' 1722 map of the city (see attached plans). During the 17th and early 18th century this area was characterized by commercial/residential properties as well as some early industrial sites.

Recent plans of the parcel illustrate a series of developments which have probably destroyed any archaeological deposits on the property. The first would have been the extensive utilities layed beneath the section of Union Street which formerly bisected the parcel. The second and more destructive factor was the exte sion of the Green and Orange Lines through the parcel. These tunnels (see attache plan) resulted in the effective destruction of the western half of the parcel.

The eastern portion of the parcel has weathered the test of time much better. The extent of the disturbance is limited to basement construction. 1962 plans of the parcel indicate no basement floor deeper than 8 feet below grade. Given that most archaeological deposits in the city are found at depths between 10 and feet below ground surface, there is a high probability of archaeological surviva

Based upon this information, the eastern portion of the parcel (east of Unio Street) appear to hold great potential for archaeological deposits. Therefore, the recommendation offered here is that an archaeological survey of the property will be required prior to the start of construction.


The TOWN of BOSTON IN New England by Capt John Bonner 1722
Charles River
Ferry to Charles Town
Mill Pond
Mill Damm
COMMON
Powder House
Watch House
Beacon Hill
Fox Hill
Wind Mill Point
Hill's Wharf
Fort Hill
Long Wharfe
Old Wharfe
HARBOUR
Rope Walk
Scale of ½ a Mile
Explanation.
Great Fires.
Genll Small Pox
Engraven and Printed by Fra. Dewing Boston N E 1722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B:14.5
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B:13.2
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Grano. Paving

Boston
Redevelopment
Authority

Robert J. Ryan/Director

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OCT 26 1983

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

Secretary James Hoyte
Executive Office of Environmental
Affairs
100 Cambridge Street
Boston, MA 02202

October 27, 1983

Attention MEPA Unit

Dear Secretary Hoyte:

Re: EOEA #4946: Hotel/Office Development, Parcel 7
Government Center, Boston

Pursuant to regulations implementing M.G.L., Chapter 30, Sections 62-62H, the Boston Redevelopment Authority has reviewed the above-referenced ENF and submits the following comments.

In August, 1983, the BRA tentatively designated Congress 7 Limited Partnership as developers for Parcel 7. This designation specified project elements and design conditions that must be adhered to by the developer and will be monitored by ongoing design review approval.

The following includes the major areas of environmental concern which we feel should be evaluated in the EIR. Several of these areas have been identified by the developer as important subject to study.

Energy: The discussion on energy should include specific energy conservation features that will be incorporated into building design. We recommend that life-cycle costing be used as a factor in designing the HVAC systems.

Water Quality/Sewerage: Since the project is located in the East Side Interceptor drainage area, and will generate over 10,000 gpd wastewater, the Boston Water and Sewer Commission will require a holding tank as a condition of issuance of a Permit for a Sewer Extension and Connection. A discussion of the location of this tank and integration with existing underground utilities and structures should be included. We also recommend as a future energy conservation measure that consideration be given to designing the tank to allow for conversion a thermal storage to provide chilled water when the tank is no longer needed for holding wastewater.

1 City Hall Square
Boston, Massachusetts 02201
(617) 722-4300

Water Quality/Supply/Use: This discussion should conclude specific measures that will be incorporated to reduce water consumption, such as low volume toilets.

Oil and grease traps should be installed on garage drains to minimize oil and heavy metal pollution discharging into Boston Harbor.

Groundwater: An engineering analysis of how this project will affect groundwater levels in the surrounding area should be made. Specific mitigation measures that will be implemented if necessary during and/or after construction to maintain groundwater levels should be included. Of particular importance will be the effect of the interaction of this construction with the proposed depression of the Central Artery.

Wind: Wind tunnel testing should be required to evaluate the impacts of wind on pedestrians. Particular concern should be given to the open pushcart market on Blackstone and Hanover Streets. Specific mitigation measures that will be implemented when necessary should be included.

Shadow: Shadow impact analysis should be undertaken and cover the expected impact, particularly on pedestrian and open space areas and on the historic Blackstone Block, on a diurnal and seasonal basis.

Vehicular and Pedestrian Traffic: An evaluation of vehicular entrances should be made to ensure that traffic does not impinge upon proposed pedestrian areas. Of particular concern is the area of Hanover Street between Union and Blacksone Streets where considerable pedestrian activity takes place in relation to the open market and where the opportunity exists to restrict vehicular traffic and install pedestrian improvements.

An evaluation should be made of how pedestrian access and flow between the Quincy Market and North Station area will be affected or enhanced by this development.

Traffic analyses should include modal split, parking supply and demand, and access data in order for an adequate evaluation to be made. Controls, such as delivery scheduling, that will be implemented, if necessary, at the loading area on Blackstone Street should be developed in order to minimize disruption of traffic by trucks.

Subway Station: A discussion of the location of the MBTA subway entrance and how this development will affect pedestrian access to this entrance should be made. An evaluation of design options that would enhance access should be included.

Air and Noise Pollution: The impacts of construction on noise and air pollution, especially particulates, should be discussed and mitigation measures that will be required by the contractor included. We also recommend that a mechanism for inspection and response be developed in order to minimize impacts on the many pedestrians in this area.

Pushcart Area: The EIR should discuss how the project will affect pushcart market location and activities on Hanover and Blackstone Streets and what measures will be implemented to ensure enhancement continuance of this space and activities. The developer has agreed to create pushcart-related amenities in coordination with the pushcart association to improve the pushcart area.

Archaeology: Because of the potential for finding archaeological resources on the project site, the developer should work with the Massachusetts Historical Commission archaeologist to conduct a study of the site.

Sincerely,

Robert J. Ryan
Director

B1/J/102783

downtown north association

BOSTON, MASS. 02114

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October 27, 1983

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OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

Mr. Steven Kaiser
MEPA
20th Floor
100 Cambridge Street
Boston, Massachusetts

RE: EOEA NUMBER 4946

Dear Mr. Kaiser:

I am writing to you on behalf of the Downtown North Association, Inc. relating to the scoping of the EIR/EIS for Parcel 7 of the Government Center on which is planned a 464 room Holiday Inn, a 210 car parking garage, and an 85,000 square foot Office Building.

Over the years, the Downtown North Association and the North Station Area merchants have been working with the BRA and City of Boston to achieve a promised linkage between Canal Street and the Faneuil Hall Market complex.

Our concern relating to the scoping of the EIR/EIS is that all factors are considered which impact on this physical, visual and psychological linkage between the Markets and the Bullfinch Triangle.

Such a list would include:

1. The accummulative impacts of the proposed Parcel 7 Development and the proposed Government Center Garage Redevelopment.
2. The traffic impacts as they effect the vehicular flow into or out of the Bullfinch Triangle/North Station Area.
3. The traffic impacts as they effect the pedestrian flow from the Faneuil Hall Markets to North Station and from the North Station to the Faneuil Hall Markets.
4. The visual impact of both Parcel 7 and the Government Center Garage Redevelopment on pedestrians as they either approach these developments from the Bullfinch Triangle or from the Faneuil Hall Markets.
5. The visual blockage of views to the markets and waterfront from people living or working in the North Station or Charles River Park.

6. The impact of ground floor uses as they would either "pull" people from North Station to the Markets or vice versa.

7. The impact of the proposed development on the parking resources servicing the North Station Area.

8. The impact of the proposed development on any of the municipal services currently serving the North Station Area.

9. The interim construction impacts including traffic and pedestrian flow on the North Station Area.

10. An examination of the alternative locations of the major development components as illustrated by the current architectural plans of the developer and the location championed by the Boston Redevelopment Authority.

Thank you for your consideration. I would appreciate receiving a copy of the Scoping Report when you complete it.

Sincerely yours,

DOWNTOWN NORTH ASSOCIATION, INC.

Paul A. Mooney
President

PAM:rs

The Boston Preservation Alliance
An Association of Preservation Organizations
P.O. Box 1165, Boston, Massachusetts 02103
Phone: 242-5656

November 30, 1983

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OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

Steve Kaiser
MEPA
Executive Office of Environmental Affairs
100 Cambridge St.
Boston, MA 02202

RE: EOEA number 4946, Holiday Inn (Parcel D-7)

Dear Mr. Kaiser:

We have received the scoping certificate for the environmental impact statement to be prepared in connection with the above project.

The Alliance is very concerned that the alternatives listed do not provide for a "low build" option. That is to say, there is no alternative providing for a project that is scaled to be compatible with the adjoining Blackstone Block.

We would like to request that such an alternative be added to the scoping certificate.

Sincerely,

Rupert A. M. Davis
Executive Director

cc: James Hoyte, Secretary of Environmental Affairs

RAMD:djh

SHERIN AND LODGEN
COUNSELLORS AT LAW

140 FEDERAL STREET
BOSTON, MASSACHUSETTS 02110

TELEPHONE 425-5720
AREA CODE 617

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JOSHUA M. ALPER
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BURTON S. KLIMAN
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PHYLLIS FINE MENKEN

*ADMITTED IN FLA AND MASS
**ADMITTED IN CAL. AND MASS

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GEORGE E. LODGEN
[illegible]

IN CALIFORNIA
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BEVERLY HILLS CALIFORNIA 90211
(213) 275-4466

December 16, 1983

Steven Kaiser, Esquire
Executive Office of Environmental Affairs
Leverett Saltonstall Bldg., 20th Floor
100 Cambridge Street
Boston, MA 02202

Attention: MEPA Unit

Re: Hotel/Office Development, Parcel 7
Government Center, Boston, MA

Dear Mr. Kaiser:

I represent the Boston Preservation Alliance, Inc., a Massachusetts non-profit organization (the "Alliance") and am writing to you in connection with the scoping hearing which was held on November 7, 1983 concerning the construction of the Hotel /Office on Parcel 7 near Government Center, Boston, Massachusetts (the "Project") by Cambridge 7 Limited Partnership (the "Proponent"). The meeting was attended by Mr. Rupert Davis, Executive Director of the Alliance. At the time of the meeting, Mr. Davis was unaware of the nature of the meeting, which was actually a "scoping" session held pursuant to 301 CMR § 16.05 under the Massachusetts Environmental Protection Act and 40 CFR § 1501.7 under the National Environmental Protection Act. Mr. Davis was unfamiliar with the procedure of the "scoping" session and received the Environmental Notification Form only a few days prior to the session. Mr. Davis did not make any comments on the Project at the session believing the meeting to be only informational in nature. While it is regrettable that Mr. Davis did not comment during the session, he was prepared to do so had his comments been solicited, but unfortunate no effort was made to explain the procedures to Mr. Davis.

The failure to solicit any alternatives from Mr. Davis raises serious questions about the efficacy of the scoping session. Under 301 CMR § 10.05(e), Part V, the "[a]lternatives to the proposed project must be listed" so that the agencies involved use "all practicable means and measures to minimize damage to the environment, and the protection of the public interest." The scoping session is not the final measure by which one determines that reasonable alternatives have been considered fully under M.G.L. c.30, § 62B, but only an indicia of the Proponent's effort to solicit comments. Under the circumstances, the failure of the Proponent to fully solicit alternatives directly contradicts the spirit of the regulation which reads: "Proponents are urged to make use of the resources of appropriate federal, state and local agencies, private groups and educational institutions in evaluating alternatives to their proposed projects." 301 CMR § 10.05(e) (Part V).

As I am sure you are well aware, failure to properly and carefully consider all alternatives to the Project may result in extensive delays in the Project's completion on account of subsequent legal action. The Alliance certainly does not desire that result and simply wishes to insure that all "reasonable alternatives to the proposed project" be considered pursuant to M.G.L. c.30, § 62B. Also, those alternatives which were not discussed at the scoping session because of their "presumed inferiority" must also be fully considered. See 301 CMR § 10.05(e (Part V). This means quite clearly that any proposal which falls short of the Proponent's Project in terms of height and density, in fact the very alternatives which the Alliance is asking you to consider, must be fully considered in the Environmental Impact Report.

In light of the above, I formally request on behalf of the Alliance that you consider the following alternatives:

1) A "no-build" alternative pursuant to 301 CMR § 10.05(6) that fully explores the possibility of creating an urban park similar to the park which currently exists between the Blackstone Block and the City Hall;

2) A vastly scaled down, low density version of the project of one-quarter to one-third the Project's current size which maintains the existing design form;

3) A vastly scaled down, low density project of one-quarter to one-third the Project's current size which incorporates an entirely new design form which is in harmony with the adjacent buildings in the Blackstone Block in terms of its texture, form, sensibility and historic character in a manner similar to the way the nearby Bostonian Hotel relates to the buildings in the Blackstone Block;

4) A vastly scaled down, low density project with a cornice line and rooftop level no higher than any existing building in the Blackstone Block, such project to be in harmony with the adjacent buildings in the Blackstone Block in terms of its texture, form, sensibility and historic character in a manner similar to the way the nearby Bostonian Hotel relates to the buildings in the Blackstone Block; and

5) Any other version of the Project which the Proponent may propose.

The Alliance hopes that you and the Proponent will fully accept the alternatives to the Project set forth above. In that regard, the Alliance requests that you and the Proponent evidence your acceptance of these alternatives as part of the EIR by stating so in a letter addressed to me to be received no later than December 27, 1983. The Alliance feels that these alternatives should have been properly brought up at the November 7, 1983 meeting. The Alliance reserves the right under 301 CMR § 10.15 to challenge the scoping process and will formally do so if the above alternatives are not considered.

The Alliance is confident that you will fully comply with all the provisions of 301 CMR § 10.05. The Alliance also requests that you include it on your list of individuals and entities that will receive the draft EIR and subsequent documents for review and comment. All notifications and documents should be sent to:

Mr. Rupert A. M. Davis
Executive Director
The Boston Preservation Alliance
P. O. Box 1165
Boston, MA 02103

with a copy to

Burton S. Kliman, Esquire
Sherin and Lodgen
140 Federal Street
Boston, MA 02110

The Alliance is willing to assist you and the Proponent in developing the alternatives listed above in more detail. Please feel free to contact me, Mr. Davis, or Mrs. Susan Park, Chairwoman of the Alliance, at any time, to discuss these alternatives.

Very truly yours,

Burton S. Kliman
Attorney for the Boston Preservation Alliance
hereunto duly authorized

BSK/hb

cc: Mr. Robert J. Ryan, Director
Boston Redevelopment Authority

Ms. Susan Allen
Boston Redevelopment Authority

John F. Bok, Esquire
Csaplar & Bok

Ms. Susan Park
Boston Harborfest

Mr. Rupert A. M. Davis
Executive Director
The Boston Preservation Alliance

Mr. James Hoyte, Secretary, Executive Office
of Environmental Affairs

Mr. Samuel Mygatt
Director of Environmental Affairs

Timothy D. Jaroch, Esquire
McDermott, Will & Emery

Robert J. Muldoon, Esq.
Sherin and Lodgen

CERTIFIED MAIL
RETURN RECEIPT REQUESTED
P 448 419 101

SHERIN AND LODGEN
COUNSELLORS AT LAW

140 FEDERAL STREET
BOSTON, MASSACHUSETTS 02110

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*ADMITTED IN FLA AND MASS
**ADMITTED IN CAL. AND MASS

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IN CALIFORNIA
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BEVERLY HILLS, CALIFORNIA 90211
(213) 275-4486

December 16, 1983

Steven Kaiser, Esquire
Executive Office of Environmental Affairs
Leverett Saltonstall Bldg., 20th Floor
100 Cambridge Street
Boston, MA 02202

Attention: MEPA Unit

Re: Hotel/Office Development, Parcel 7
Government Center, Boston, MA

Dear Mr. Kaiser:

I represent the Boston Preservation Alliance, Inc., a Massachusetts non-profit organization (the "Alliance") and am writing to you in connection with the scoping hearing which was held on November 7, 1983 concerning the construction of the Hotel /Office on Parcel 7 near Government Center, Boston, Massachusetts (the "Project") by Cambridge 7 Limited Partnership (the "Proponent"). The meeting was attended by Mr. Rupert Davis, Executive Director of the Alliance. At the time of the meeting, Mr. Davis was unaware of the nature of the meeting, which was actually a "scoping" session held pursuant to 301 CMR § 16.05 under the Massachusetts Environmental Protection Act and 40 CFR § 1501.7 under the National Environmental Protection Act. Mr. Davis was unfamiliar with the procedure of the "scoping" session and received the Environmental Notification Form only a few days prior to the session. Mr. Davis did not make any comments on the Project at the session believing the meeting to be only informational in nature. While it is regrettable that Mr. Davis did not comment during the session, he was prepared to do so had his comments been solicited, but unfortunately no effort was made to explain the procedures to Mr. Davis.

The failure to solicit any alternatives from Mr. Davis raises serious questions about the efficacy of the scoping session. Under 301 CMR § 10.05(e), Part V, the "[a]lternatives to the proposed project must be listed" so that the agencies involved use "all practicable means and measures to minimize damage to the environment, and the protection of the public interest." The scoping session is not the final measure by which one determines that reasonable alternatives have been considered fully under M.G.L. c.30, § 62B, but only an indicia of the Proponent's effort to solicit comments. Under the circumstances, the failure of the Proponent to fully solicit alternatives directly contradicts the spirit of the regulation which reads: "Proponents are urged to make use of the resources of appropriate federal, state and local agencies, private groups and educational institutions in evaluating alternatives to their proposed projects." 301 CMR § 10.05(e) (Part V).

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The Alliance is confident that you will fully comply with all the provisions of 301 CMR § 10.05. The Alliance also requests that you include it on your list of individuals and entities that will receive the draft EIR and subsequent documents for review and comment. All notifications and documents should be sent to:

Mr. Rupert A. M. Davis
Executive Director
The Boston Preservation Alliance
P. O. Box 1165
Boston, MA 02103

with a copy to

Burton S. Kliman, Esquire
Sherin and Lodgen
140 Federal Street
Boston, MA 02110

The Alliance is willing to assist you and the Proponent in developing the alternatives listed above in more detail. Please feel free to contact me, Mr. Davis, or Mrs. Susan Park, Chairwoman of the Alliance, at any time, to discuss these alternatives.

Very truly yours,

Burton S. Kliman
Attorney for the Boston Preservation Alliance,
hereunto duly authorized

BSK/hb

cc: Mr. Robert J. Ryan, Director
Boston Redevelopment Authority

Ms. Susan Allen
Boston Redevelopment Authority

John F. Bok, Esquire
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Ms. Susan Park
Boston Harborfest

Mr. Rupert A. M. Davis
Executive Director
The Boston Preservation Alliance

Mr. James Hoyte, Secretary, Executive Office
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Mr. Samuel Mygatt
Director of Environmental Affairs

✓Timothy D. Jaroch, Esquire
McDermott, Will & Emery

Robert J. Muldoon, Esq.
Sherin and Lodgen

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P 448 419 101

CONGRESS 7 LIMITED PARTNERSHIP

January 4, 1984

James Hoyte, Secretary
Executive Office of
Environmental Affairs
Leverett Saltonstall Building
100 Cambridge Street
Boston, MA 02202

Re: Congress 7 Limited Partnership;
Development of Parcel 7, Government
Center, Boston, Massachusetts

Dear Secretary Hoyte:

On behalf of Congress 7 Limited Partnership, the designated developer for the Parcel 7 project, I am writing in response to a letter written to Mr. Stephen Kaiser of the MEPA Unit by the attorneys for the Boston Preservation Alliance. That letter, dated December 16, 1983, challenged the legal sufficiency of the process that resulted in the environmental scoping letter issued for the Parcel 7 project on November 7, 1983.

To begin with, I disagree with the interpretation of the relevant environmental statutes and regulations put forth by the Alliance's attorneys. Neither the Secretary of Environmental Affairs nor a project proponent is required to "properly and carefully consider all alternatives" to a proposed project. There are many, many alternative designs and massing schemes which can be developed for any major project. M.G.L. c. 30, §62B does not require that a proponent consider all the combinations and permutations -- only those which are reasonable under the circumstances of a particular project and site. Many project alternatives are economically or functionally infeasible, and there is nothing in the Massachusetts statutory scheme that would encourage you to disregard that reality.

The design arrived at by Congress 7 Limited Partnership is the product of concerted urban planning studies. One of our major objectives was to have a project that interacted responsibly with the Blackstone Block buildings and the Government Center area. At various times, that design has been reviewed and commented upon by representatives of the Massachusetts Historical Commission, the Haymarket Pushcart Operators Association, the Boston Landmarks Commission and the Boston Society of Architects. We have, in fact, made use of many appropriate resources in evaluating alternatives to the proposed project. Our design concept has also been refined to meet the special needs of an urban hotel.

Development of the Parcel 7 site is substantially affected by such factors as limited buildable area, the line-of-sight easement which restricts the use of the middle of the parcel, a high water table and the presence of two MBTA tunnels and an MBTA station platform beneath the site. In part because of those factors, it will be very expensive to acquire and develop Parcel 7. It is simply unrealistic to suggest that a "vastly scaled-down, low density project of one-quarter to one-third the Project's current size" is a feasible development alternative. If that alternative had been proposed at the November 7, 1983 scoping session, we would have dealt then and there with the issue of unreasonableness. No project proponent should be required to expend time and money to study alternative development schemes that are uneconomic and would never be built.

Congress 7 Limited Partnership objects to the reopening of the environmental scoping process as requested by the Alliance. That process was conducted in accordance with both the letter and spirit of M.G.L. c. 30, § 62B and 301 C.M.R. § 10.05. However, we certainly acknowledge the legitimate concern of the Alliance that Parcel 7 be developed in a manner that is environmentally responsible, particularly in relation to the Blackstone Block. We would be pleased to meet with representatives of the Alliance to discuss the evolution of our design concept and the ways in which we have sought to achieve a positive relationship with the Blackstone Block and the nearby cityscape. In fact, that invitation to discuss the proposed project was extended almost a month ago to Ms. Gladys Gifford, an attorney for the Alliance. We are also quite willing to include in our environmental impact report a section that describes the evolution of our design concept, including reasons for the rejection of certain alternative plans.

If you need any further information in advance of the submission of our draft environmental impact report, please contact our attorney, Timothy D. Jaroch, McDermott, Will & Emery, One Post Office Square, Boston, MA 02109 (357-0200).

Thank you for your cooperation.

Sincerely,

CONGRESS 7 LIMITED PARTNERSHIP

By: David E. Nassif
David E. Nassif, General Partner

/co/0323J

BY HAND

cc: Steven Kaiser, Principal Civil Engineer, MEPA Unit
Burton S. Kliman, Esq.
Robert J. Ryan, Director
Ms. Susan Allen
John F. Bok, Esq.
Mr. Rupert A. M. Davis
Samuel G. Mygatt, Executive Director
Robert J. Muldoon, Esq.
Mr. Peter Chermayeff

KA

S. O. M.

JAN 9 1984

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WASHINGTON, D. C. 20006
202/887-8000

TIMOTHY D. JAROCH

January 6, 1984

Karen B. Alschuler,
Associate Partner
Skidmore, Owings & Merrill
334 Boylston Street
Boston, MA 02116

Re: Development of Parcel 7, Government Center, Boston, Massachusetts

Dear Karen:

Enclosed are photocopies of (i) the December 16, 1983 letter sent to the MEPA Unit by the attorneys for the Boston Preservation Alliance, (ii) David Nassif's response to the Secretary of Environmental Affairs concerning that letter and (iii) those response letters to our ENF that were passed on to me by Steven Kaiser.

Respectfully,

Tim

Timothy D. Jaroch

TDJ/0333J/co
Enclosures

TI E KA

S. O. M.
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TIMOTHY D. JAROCH

January 6, 1984

Karen B. Alschuler,
Associates Partner
Skidmore, Owings & Merrill
334 Boylston Street
Boston, MA 02116

Re: Development of Parcel 7, Government Center, Boston, Massachusetts

Dear Karen:

After sending off my earlier letter to you today, I received the enclosed "love note" from the Boston Preservation Alliance.

Respectfully,

Tim

Timothy D. Jaroch/ca

TDJ/co/335J
Enclosure

January 6, 1984

NOTICE OF INTENT TO COMMENCE AN ACTION ALLEGING THAT A SCOPING HEARING DOES NOT ADEQUATELY AND PROPERLY COMPLY WITH MEPA

As provided in M.G.L., Chapter 30, Section 62H, and Section 15.1 of the Regulations Governing the Implementation of the Massachusetts Environmental Policy Act, the Boston Preservation Alliance, Inc., a Massachusetts non-profit organization, herein provides notice that it intends to commence an action alleging that the Scoping Hearing which was held on November 7, 1983, concerning construction of the Hotel/Office on Parcel D-7 near Government Center, Boston, Massachusetts, does not adequately and properly comply with MEPA. Said action will be commenced on or about March 5, 1984, in Suffolk Superior Court.

1. Project Name: Holiday Inn (Parcel D-7)

2. Project Proponent: Congress 7 Limited Partnership

3. Project's EOEA #: 4946

4. Date of Scoping Hearing: November 7, 1983

5. State below the reasons why you believe the Scoping Hearing is not adequate. Specify the subject matter areas which you believe require further treatment and indicate what corrective measures you believe will be appropriate.

See Letter Attached Hereto As Exhibit "A". Although that letter has been "withdrawn" by Mr. Kliman, it describes at length the inadequacy of the Scoping Hearing.

BY: BOSTON PRESERVATION ALLIANCE, INC.

By: Susan Park

Susan Park, Chairman
Boston Preservation Alliance, Inc.
45 School Street
Boston, MA 02108

SP:PAT
Attachment

VIA MESSENGER

Copies also sent via
Certified Mail/Return
Receipt Requested

SHERIN AND LODGEN
COUNSELLORS AT LAW

140 FEDERAL STREET
BOSTON, MASSACHUSETTS 02110

TELEPHONE 428-5720
AREA CODE 617

AUL MELROSE
ORTON B BROWN*
EORGE WALDSTEIN**
OHN M REED
OBERT J. MULDOON, JR
LETTE E. REED
RUCE L. DOVE
AUL R GUPTA
OSHUA M. ALPER
HOMAS PAUL GORMAN
ONSTANCE M HILTON
AVID A GUBERMAN
URTON S KLIMAN
ARK A. NOWAK
OHN M PEREIRA
HYLLIS FINE MENKEN

*ADMITTED IN FLA AND MASS
**ADMITTED IN CAL AND MASS.

ARTHUR L SHERIN
1949-1984

GEORGE E LODGEN
1949-1971

IN CALIFORNIA.
8601 WILSHIRE BLVD SUITE 501
BEVERLY HILLS CALIFORNIA 90211
(213) 275-4488

January 9, 1984

Steven Kaiser, Esquire
Executive Office of
Environmental Affairs
Leverett Saltonstall Building
20th Floor
100 Cambridge Street
Boston, MA 02202

Attention: MEPA UNIT

RE: Hotel/Office Development, Parcel 7
Government Center, Boston, MA

Dear Mr. Kaiser:

I refer you to my letter dated December 16, 1983 and relevant telephone conversations concerning the project referenced above.

I hereby withdraw my letter dated December 16, 1983 and ask that you consider the provisions and conditions in that letter to be without force and effect. Also, please be advised that we no longer represent the Boston Preservation Alliance, Inc. in connection with this matter.

Very truly yours,

Burton S. Kliman

Burton S. Kliman

BSK/ms

cc: Mrs. Susan Park
Mr. James Hoyt
Mr. Timothy D. Jaroch, Esq.
Mr. Rupert A. M. Davis
Mr. Samuel Mygatt
Mr. Robert J. Ryan
Ms. Susan Allen
John F. Bok, Esq.
Mr. Robert J. Muldoon, Esq.
Mr. Peter Chermayeff

BRACKEN AND BARAM
33 MOUNT VERNON STREET
BOSTON, MASSACHUSETTS 02108
(617) 742-4950

THOMAS B BRACKEN
MICHAEL S BARAM
J RAYMOND MIYARES

ROBERT T SMART, JR

RECEIVED
MAR 1 [illegible]
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

March 9, 1984

Samuel Mygatt, Esq.
Executive Director, MEPA Unit
Executive Office of Environmental Affairs
20th Floor, 100 Cambridge Street
Boston, Massachusetts 02202

Re: Proposed Development of Parcel 7
Government Center, Boston, Massachusetts
Holiday Inn Hotel/Office Building

Dear Sam,

This letter is to confirm some of the points Susan Park, Gladys Gifford and I attempted to make in behalf of the Boston Preservation Alliance at our meeting on February 14 with you, Steve Kaiser, Tim Jaroch, and Dick Mertens to discuss the above project.

After you reviewed the chronology of events with respect to your Office's involvement in the proposed project, we raised the Alliance's objection to the scope of the EIR for the project, principally because of its failure to include consideration of reasonable alternatives, such as various low-built configurations an the use of the site for public park and recreation, as outlined in a letter dated December 16, 1983 to you from Burton S. Kliman, Esq. who then represented the Alliance. Limiting the alternatives to "no-build" and rearrangement of the high-rise hotel and office building on the site fails to adhere to the statutory requirement of chapter 30, §62B that an EIR shall contain, inter alia, statement describing "reasonable alternatives to the proposed project and their environmental consequences." This statutory requirement is se forth in Regulations applicable to preparation of an EIR (310 CMR §10.05(7)(e)).

Although Mr. Jaroch stated at our meeting that the developer may address some alternatives suggested by the Alliance in the draft EIR, he said the alternatives would not be discussed affirmatively. This approach by the developer is contrary to the purpose of an EIR which, the regulations provide, is to serve as "a planning tool to enable environmental damages to be fully disclosed and considered by public agencies and project proponents before they make their decisions." (301 CMR §10.01(3)). This section of the regulations states further that "an EIR should not be used to justify important decisions that have been already made." Unfortunately the developer for this project has expressed the intention to use the EIR in the manner which the regulations expressly have sought to avoid.

Further, we do not believe that Mr. Jaroch's contention that "the economics of the site are the driving force" can be used as a justification for the failure to objectively consider alternatives. This statement assumes that the BRA, as the public agency charged with the development of such properties in the public interest, is required to dispose of the property at the highest commercial price without regard to the effect of that use on the public interest, including particularly the environment.

In any event, it seems to us a mistake for your office not to require that the EIR fairly and objectively consider all reasonable alternatives to the proposed project, including the low-rise options, and that the environmental benefits and detriments of the alternatives be weighed against the developer's high-rise proposal.

Mr. Mertens raised another issue; namely, the possibility that compliance with NEPA also is required because of HUD's role in approving the purchase price of the project site. Mr. Mertens pointed out that the project was being carried out pursuant to a federally approved urban renewal plan and a contract between HUD and the BRA which provides for continuing review and approval by HUD. Such federal involvement in a BRA project has been held sufficient to invoke the requirements of NEPA (see Aertsen et al. v. Harris et al., U.S. District Court for the District of Massachusetts, Civil Action No. 78-3371-C, Slip Opinion, March 27, 1979). It would seem to be in the developer's interest to take all actions required by NEPA concurrently with its efforts to comply with MEPA.

We also raised the question of when the developer intends to comply with the Massachusetts statute regulating historic preservation sites, chapter 152, sections 1-6. Specifically, we pointed out that notification of the effects of a proposed project on historic sites is to be given to the Historic Commission for review as early as possible in the planning process. Mr. Jaroch stated that he knew the project had to comply with chapter 152, but did not indicate at what point in the proceedings compliance would be effected. In addition, since it now appears that federal approval is necessary, the project will have to satisfy the requirements of the National Historic Preservation Act, 16 USC §470f, since the federal action will have an effect on an historic district included in the National Register.

Because of the significant detrimental environmental impacts of this proposed project and its inconsistency with the planning for the Government Center/North End area of Boston, including particularly depression of the Central Artery, we urge your office to give serious consideration to requiring the scope of the EIR to be broadened to consider all of the issues mandated by the statute and your regulations, including specifically alternatives more compatible with the neighborhood. Otherwise, it appears that a legal confrontation between the Alliance and the proponents of the project ultimately will result. We would be pleased to meet with you and other interested parties again to discuss these issues if you believe such a meeting would be useful.

Very truly yours,

Robert T. Smart Jr.

Thomas B. Bracken

cc: Timothy Jaroch, Esq.
Ms. Susan Park
Ms. Gladys Gifford

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

MICHAEL S DUKAKIS
GOVERNOR

JAMES S. HOYTE
SECRETARY

March 14, 1984

Mr. Thomas B. Bracken
Bracken & Baram
33 Mount Vernon Street
Boston, MA 02108

RE: EOEA # 4946, Hotel/Office Development

Tom

Dear Mr. Bracken:

I acknowledge your March 9 letter, which so ably reiterates the points made by you in our meeting. As you know, I took the position that, the scoping period having passed, the Scope would not be unilaterally modified by Secretary Hoyte. It is the proponent's responsibility to submit an EIR which is responsive to the Scope; to the extent that the EIR goes beyond the Scope, it will be all the more useful.

Sincerely,

Samuel G. Mygatt, Executive Director
Environmental Impact Review

SGM/SK/dc

cc: Timothy Jaroch, Esquire

49

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TIMOTHY D. JAROCH

RECEIVED
MAR 15 1984
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

March 14, 1984

Samuel Mygatt, Executive Director
MEPA Unit
Executive Office of
Environmental Affairs
100 Cambridge Street, 20th Floor
Boston, MA 02202

Re: Congress 7 Limited Partnership; Proposed Development of Parcel 7, Government Center Urban Renewal Area, Boston, Massachusetts

Dear Sam:

At the conclusion of the meeting in your office on February 14, I assured Susan Park, Gladys Gifford and Tom Bracken that my client wanted to be responsive to the legitimate concerns of the Boston Preservation Alliance, and that we hoped to be able to work as harmoniously as possible with the Alliance. That remains my client's position. However, I feel compelled to address some of the inaccuracies contained in Tom Bracken's letter to you dated March 9, 1984.

To begin with, Mr. Bracken suggests that "the developer for this project has expressed the intention to use the EIR in the manner which the regulations expressly have sought to avoid" (i.e., by using the EIR to justify important decisions that have already been made). That is not the case. I simply made the point that no developer is going to be able to speak very affirmatively about design alternatives which are not feasible and which would never be constructed.

I corrected Mr. Bracken at the February 14 meeting when he attempted to quote me as stating that "the economics of the site are the driving force." I told him then that what I said was that the economics of the Parcel 7 site, as with any site, are *a* driving force, not *the* driving force. My statement wasn't even insightful; it simply represents another way of stating the very obvious truth that no developer goes into a project if he knows it will be a losing proposition financially. Strangely enough, lending institutions seem to have the very same approach in assessing the financing of a development project.

I also disagree with Mr. Bracken, as I did at our February 14 meeting, that our proposed project requires compliance with *NEPA*. Dick Mertens of the BRA did not state that HUD has a continuing review function in connection with the Parcel 7 site, but, in any event, the developer will certainly work with the BRA and others to determine compliance requirements.

Congress 7 Limited Partnership intends to comply fully with Massachusetts statutory and regulatory requirements in preparing and submitting its environmental impact report. In doing so, the developer will seek to work harmoniously with the Boston Preservation Alliance, the Boston Landmarks Commission, the Massachusetts Historical Commission, and other interested groups and individuals to make the process of developing the Parcel 7 site as constructive as possible.

Respectfully,

Timothy D. Jaroch

TDJ/co/616

cc: Mr. David E. Nassif
Ms. Susan Park
Ms. Gladys Gifford
Mr. Thomas B. Bracken, Esquire
Mr. Richard Mertens

4996

BRACKEN AND BARAM
33 MOUNT VERNON STREET
BOSTON, MASSACHUSETTS 02108
(617) 742-4950

THOMAS B BRACKEN
MICHAEL S BARAM
J. RAYMOND MIYARES
ROBERT T. SMART, JR

RECEIVED
MAR 22 1984
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ENVIRONMENTAL AFFAIRS

March 20, 1984

Samuel Mygatt, Esquire
Executive Director
MEPA Unit
Executive Office of Environmental Affairs
100 Cambridge Street, 20th Floor
Boston, Massachusetts 02202

Re: Proposed Development of Parcel 7
Government Center Urban Renewal Area
Boston, Massachusetts

Dear Sam:

The Alliance is pleased with the assurances given in Tim Jaroch's March 14th letter to you that Congress 7 Limited Partnership, the propos developer of the Parcel 7 site, intends to fully comply with Massachuset statutory and regulatory requirements in preparing the EIR, including considering all feasible alternatives to the proposed high-rise hotel.

With respect to the effect of economics on the proposed use of the site, our point is not that the developer should plan a "losing proposition," but that the BRA, as the public agency responsible for the develc ment of the property and the environmental review, should not be motivat by the profit incentive. Instead of looking for the highest commercial use of the site, the BRA should consider uses consistent with enhancing the quality of the surrounding neighborhood, preserving historic landmar and minimizing damage to the environment.

As to the applicability of NEPA to the proposed project, we believe the contract between the BRA and HUD covering the Government Center Urba Renewal Area will disclose that HUD has a continuing responsibility for the development of the site, including, as Mr. Mertens specifically stat the authority to approve the sale price. We do not know the specific terms of this contract because the BRA has refused to voluntarily make i available for inspection and copying. Accordingly, we have made a forma request under the public records law to obtain the document. However, based on my experience with similar contracts, I believe the continuing HUD role is sufficient to require this proposed project to comply with NEPA. (See the Aertsen case referred to in my March 9th letter.)

Samuel Mygatt, Esquire
March 20, 1984
Page Two

Finally, Mr. Jaroch did not mention the matter of compliance with Massachusetts and federal statutes relating to historic sites, both of which we believe are applicable to this project.

As I mentioned in my March 9th letter, we would be pleased to meet with you, Mr. Jaroch and other interested parties to discuss these issues further in the interest of harmoniously resolving our differences, a procedure Mr. Jaroch stated his client also wanted to pursue.

Sincerely,

Thomas B. Bracken

TBB:hcg

cc: Timothy Jaroch, Esquire
Ms. Susan Park
Ms. Gladys Gifford
Mr. Richard Mertens

Boston
Redevelopment
Authority

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MAR 27 1984
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March 21, 1984

Mr. Samuel Mygott
Executive Director
MEPA Unit
Executive office of
  Environmental Affairs
100 Cambridge Street
Boston, MA 02202

Dear Sam:

RE: EOEA #4946: Parcel 7 Development-Government Center Urban Renewal Project - Boston, Massachusetts

I would like to correct certain statements made in the letter to you of Thomas Bracken, Esq., dated March 9, 1984, (a copy of which I received only today, from Timothy Jaroch, Esq.), regarding remarks that I allegedly made during the meeting in your office on February 14, to discuss the proposed Parcel 7 development EIR. I shall assume that Mr. Bracken misunderstood or misinterpreted my remarks.

For the record, I did not state that compliance with NEPA was required nor that the Parcel 7 project was subject to "continuing review and approval" by HUD, but rather that the Government Center Urban Renewal Project had been closed-out by HUD although HUD did retain the authority to approve the disposition price for the parcel. The Government Center project was closed out on December 12, 1972, and, according to the close-out agreement, HUD's only continuing responsibility relates to the approval of dispositions and of major amendatories (if any). Approval of a disposition price for parcel disposition of an approved urban renewal plan is not, in my opinion, an action that would be subject to NEPA. Under HUD regulations, NEPA would apply only if there were a Federal decision point, such as approval of an urban renewal plan or of a major amendatory to a plan. Neither of these actions occur in the present case. Moreover, HUD itself has specifically determined that NEPA reviews are not required for urban renewal projects approved prior to January 1, 1970 (the effective date of NEPA). The Government Center Urban Renewal project (loan and grant application) was approved by HUD on July 28, 1964.

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Boston, Massachusetts 02201
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Similarly, I do not believe that the Parcel 7 project also is subject to the requirements of the National Historic Preservation Act. HUD also has determined that compliance with the Act is not required for properties listed on the National Register after execution of a Loan and Grant contract (unless a major amendatory were to occur). The Blackstone Block (the historic property in question) was listed on the Register on April 26, 1973, four years after execution of the Loan and Grant contract. Since, as noted above, there is no Federal decision point with regard to the Parcel 7 development, compliance with the NHPA would not be triggered. This view, I might add, is entirely consistent with a similar finding made by HUD with regard to the Long Wharf Hotel development in the Downtown Waterfront-Faneuil Hall Urban Renewal project.

Sincerely,

Richard B. Mertens
Environmental Review Officer

cc: Thomas D. Bracken, Esq.
Timothy D. Jaroch, Esq.
Susan Park
Gladys Gifford

LA1/O/032384

#4946

The Boston Preservation Alliance
An Association of Preservation Organizations
P.O. Box 1165, Boston, Massachusetts 02103

RECEIVE
MAY 7 1984
OFFICE OF THE SECRETARY
ENVIRONMENTAL AFFAIR

May 2, 1984

Valerie Talmage
Massachusetts Historical Commission
294 Washington Street
Boston, MA 02108

Dear Val,

The Boston Preservation Alliance would like to request that the Massachusetts Historical Commission take the necessary action to insure that the proposed BRA project for Parcel 7 in the Government Center Urban Renewal Area be reviewed under Chapter 152 of the Acts of 1982.

It is our understanding that the developer of this project is presently preparing a draft Environmental Impact Report pursuant to MEPA. Preparation of the EIR should be coordinated with the review of Chapter 152 as required in Regulation 950 CMR 71.04(3).

This request for action has been previously addressed in the enclosed correspondence dated October 26, 1983 and March 9, 1984. The first reference is made in your letter to Secretary James Hoyte of the Executive Office of Environmental Affairs dated Oct. 26, 1983 requesting an archaeological survey of the project area and design review in compliance with MEPA (see page 2). The second reference is made in a letter from Thomas B. Braken, Esquire to Samuel Mygatt, Esquire at the MEPA Unit (see page 2). We are not aware that there has been any response to either request to date.

Thank you for your attention in this matter.

Sincerely,

Susan Park

Susan Park
Chairman

Enc.-2

CC: Samuel Mygatt, Esquire
Timothy Jarcoh, Esquire
Robert Ryan, BRA

McDERMOTT, WILL & EMERY
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TIMOTHY D. JAROCH

May 14, 1984

Stephen Kaiser, Principal
Civil Engineer
Massachusetts Environmental
Protection Agency
100 Cambridge Street - 20th Floor
Boston, MA 02202

RECEIVED
MAY 15 1984
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

Re: Parcel 7 Redevelopment, Boston, MA

Dear Steve:

When Karen Alschuler, Richard Hangen and I met with you on December 6, 1983 to seek certain clarifications regarding the scoping for the Parcel 7 project, we hoped to begin our EIR work soon thereafter. However, it ended up that almost five more months were needed to reach agreement on certain key issues with the Boston Redevelopment Authority. Now that we are ready to move ahead expeditiously on the EIR, we need to be sure that the understanding that we took away from the December 6 meeting is still accurate. Based upon my notes and a December 14, 1983 memo from Karen Alschuler to me, the following are the clarifications that we feel were agreed to:

Alternatives

The description of alternatives will include a review of various height and massing alternatives previously reviewed by the development team. However, because the BRA has accepted the hotel tower location proposed by the developer, the notion of studying a tower location even farther away from Congress Street has been dropped by the BRA. We hope that the scoping for the EIR can be modified accordingly.

Traffic, Parking and Pedestrian

1. The Study Area will be bounded by: Sudbury Street, Congress Street, North Street and Blackstone Street.

2. Four intersections will be counted and analyzed for traffic impacts. These intersections are: Sudbury at Congress; Sudbury at Blackstone; North Street at Congress; and North Street at Blackstone.

3. The baseline traffic volume will be measured for a Friday when the Hay-Market is operating. This baseline will represent the condition to be used for comparison of alternative project traffic impacts.

4. Project impacts on parking have not been specifically called for in the scope, other than an identification of how many parking spaces will be used on and off site by project-generated demands. In the case of off-site parking demands, it will not be necessary to identify locations where vehicles will park, only that they are parking off-site.

5. If hotel trip generation is to be modified by an analysis of available parking in the area, it will be sufficient to use available City of Boston parking data, which is representative of a typical weekday. It will not be necessary to collect parking data to be representative of a Friday market day situation.

Transit Implications

No change.

Sewerage

"I/I removal" noted in the scope refers to infiltration/inflow. What is requested by MEPA is a review of existing studies of infiltration and the potential for limiting infiltration in downtown Boston. The objective is to put in perspective the new sewerage to be added by Parcel 7 development in light of potential to add capacity to the option by eliminating storm water which currently flows into the sewerage system. No new studies of this issue would be required.

Visual, Aesthetics, Historical

1. The analysis of views should concentrate on views 100-200 yards from the site to demonstrate changes anticipated.

2. Archaeological studies can be completed in two parts, with historic research and testing plans drawn up now and actual testing completed as a condition of the Final EIR approval, if such an approach is acceptable to the Massachusetts Historical Commission.

Wind

Wind studies completed for the Draft EIR will constitute a full analysis of site conditions, a full description of anticipated wind impacts on-site and off-site, and recommended mitigation actions. No wind tunnel study would be required unless the qualitative wind analysis suggested the need for such a step.

Thank you for squeezing a meeting Thursday at 2 o'clock into your busy schedule. I hope that either Karen Alschuler or Bob Kaye will be able to join me at that meeting.

Respectfully,

Timothy D. Jaroch

TDJ/co

cc: Karen B. Alschuler
Robert M. Kaye

BY HAND

CONGRESS 7 LIMITED PARTNERSHIP
265 Franklin Street
Suite 1001
Boston, Massachusetts

S.C.M.
MAY 30 1986
RECEIVED

May 28, 1986

Secretary James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02602

Re: Hotel and Office Building
Congress and Hanover Streets
Boston, Massachusetts
EOEA 4946

Dear Secretary Hoyte:

Pursuant to 301 CMR 10.16, Congress 7 Limited Partnership (the "Proponent") submits this Notice of Project Change to the Secretary of Environmental Affairs (the "Secretary") to advise the Secretary of an adjustment in the balance between the programmed uses for this mixed hotel and office project, including a substantial reduction in the scope of the hotel portion of the project, and a new design for the project which eliminates the so-called tower element, reducing the height of the project by approximately 160 feet. Proponent requests permission of the Secretary to prepare the Draft Environmental Impact Report ("Draft EIR") required for this project with reference to the project as so revised in lieu of analyzing the project as described in the Environmental Notification Form ("ENF") and in the Certificate of the Secretary on the Scope for the Environmental Impact Report dated November 7, 1983, as clarified by letter of Skidmore, Owings & Merrill to Stephen Kaiser dated May 21, 1984 (Revised June 12, 1984) and concurred in by Stephen Kaiser on June 24, 1984 (the "Scoping Decision"), or the alternative described in such Scoping Decision.

Background to this Notice

In 1983 Proponent filed and distributed an ENF which described a project having the following characteristics:

Use	Square Feet/Program	Building Height in Feet
Office	85,000	103.5'
Hotel	316,000/460 Rooms	364'
Parking	83,000/218 Spaces	42'
Retail	1,800	N/A (Ground Floor)

The office building was to be located along the northerly end of the site, the hotel portion along the southerly end of the site with its tower element located nearest to Congress Street, and the parking garage was to occupy the center of the eastern portion of the site.

In response to the project as so described the Scoping Decision instructed that the alternatives to be studied in the Draft EIR were (1) No-Build, (2) Hotel and Office Complex with tower close to Congress Street, and (3) Hotel and Office Complex with tower set back from Congress Street. In addition to the three specific alternatives set forth above, Proponent was asked to discuss site plans and designs considered and rejected in the planning process.

Revised Project

The Proponent has modified the program and design of the project as follows:

Use	Square Feet/Program	Building Height in Feet
Office	120,000	103.5'
Hotel	275,000/381 Rooms	207.5'
Parking	170,000/400 Spaces	N/A (Below Grade)
Retail	10,000	N/A (Ground Floor)

As is evident from a comparison of the preceding charts, the changes in the project have occurred as a result of adjusting the balance between office and hotel uses. In addition, there has been a significant increase in available off-street parking. The increase in parking supply has been accomplished by placing all parking below grade which, in turn, allows for adjustments in the height and scale of above grade structures on the site. The change in the hotel is accomplished by a substantial redesign which no longer includes a tower element. Instead, the smaller hotel consists of an ensemble of stepped masses allowing for generous setbacks from Hanover Street and reflective of the variety of building shapes and heights in the adjacent Blackstone Block. Architectural detail and materials will be consistent with the character of masonry buildings in the area.

Impact of Project Change on Scoping Decision

Proponent suggests that the redesign of the hotel element of the project to eliminate a significant tower obviates the need to study alternatives (2) and (3), relating to tower placement, set forth in the Scoping Decision. It is suggested that the tower schemes be treated as part of the discussion of other designs considered and rejected in the evolution of the project, and that the project as described herein be studied as the single alternative to No-Build. If permission is granted by the Secretary to make such substitution, the balance of the Scoping Decision appears to remain appropriate for the project. However, Proponent calls to the attention of the Secretary that the changes in the project described herein will significantly lessen the environmental impacts of the project, including, without limitation, in the following respects:

> Parking: The increase in on-site parking, the use of which will be limited to persons bound for project facilities, will lessen the impact of the project on parking supply in the Government Center area.
>
> Water Use/Sewerage: The reduction in the number of guest rooms in the hotel reduces the daily water use by and flow from the project to below 100,000 gallons per day, falling below a threshhold for categorical inclusion under 301 CMR 10.32 (5) 7.
>
> Visual: As previously discussed, the height of the project is significantly reduced from 364 feet to 207.5 feet at the tallest element, again bringing the project beneath the threshhold for categorical inclusion under 301 CMR 10.32 (5) 15. The lower height is also likely to lessen the shadow impact of the project, particularly upon the North End neighborhood.

Reason for Change

Parcel 7 is the last remaining major development parcel in the Government Center Urban Renewal Project. That Urban Renewal Project was begun in 1964 by the adoption of the Government Center Urban Renewal Plan (the "Plan"). A central planning objective of the Plan was to create a new seat of government in a redeveloped area in which the predominant use was to be office space for both the public and private sectors, supported by transportation, retail and visitor accommodation facilities. The Plan had several major urban design objectives, the two most prominent being the commencement of a "walk to the sea" proceeding easterly from Pemberton Square, and the second being the establishment of the architectural prominence of new City Hall at the center of the Project area. This latter objective was pursued by assigning maximum (and in some cases minimum) building heights to each of the development parcels, thereby establishing a relationship in the Project area among "background" buildings and the central government buildings. A height minimum of 65 feet and maximum of 200 feet above elevation 34 (a "common ground" for a sloping project area) was assigned to Parcel 7, allowing for a maximum height of approximately 216 feet on the Parcel 7 site.

Construction within the Government Center Urban Renewal Project area has proceeded in the twenty years since the adoption of the Plan in substantial conformity with both the planning and urban design objectives established in the Plan. The Proponent has determined that development of Parcel 7 should be undertaken consistent with the overall urban design for the Government Center Project, as articulated in the Plan. The revised design for the project brings the height back within the limit contemplated by the Plan, thereby removing the "challenge" to the prominence of the JFK Federal Office Building and Boston City Hall which the tower design might have posed.

It should also be noted that the Plan was adopted contemporaneously with the Downtown Waterfront - Faneuil Hall Urban Renewal Plan (the "Waterfront Plan") for the Downtown Waterfront-Faneuil Hall Urban Renewal Project, the northerly boundary of which extends to include the Blackstone Block, and which Project area includes the Quincy Markets. The Waterfront Plan shows a particular sensitivity to preservation of the Markets and the

Blackstone Block. The contemporaneous adoption of the Plan and the Waterfront Plan, containing in the former case a height limitation upon Parcel 7 (which lies immediately to the north of the Blackstone Block) and in the latter case an objective to preserve the Blackstone Block, again argues strongly for adherence to the careful planning which has guided the redevelopment of the areas surrounding Parcel 7.

Having adopted the limitations of the Plan as design principles, it became clear that to achieve a design sensitive to the site and to its immediate neighbors the entire program of the prior tower design could not be preserved. However, all of the factors earlier cited by the Proponent in the MEPA process concerning the economic pressures upon feasibility inherent in site conditions, such as the subsurface MBTA easements and the requirement to preserve the so-called visual easement to the Old North Church, remain realities. Accordingly, the revised program described herein reflects a program reduction which maintains a workable hotel within a building envelope respectful of its context and conforming to the urban design objectives of the Plan.

In accordance with prior discussions with your staff, this Notice of Project Change will be distributed by Proponent to all persons who commented upon the ENF or the Scoping Decision. Further in accordance with those discussions, a public meeting will be held at the MEPA offices at 100 Cambridge Street, 21st Floor, on Thursday, June 12, 1986 at 10:00 a.m. to discuss the information and request made herein, which meeting any interested person is invited to attend. Written comment will be received by MEPA before that meeting and for a period of ten days thereafter.

Thank you for your consideration.

Very truly yours,

CONGRESS 7 LIMITED PARTNERSHIP

BY:______________________________
Richard H. Rubin,
Managing General Partner

cc: David E. Nassif, General Partner
Timothy Jaroch, Esquire
Persons listed on
Distribution List attached herewith

DISTRIBUTION LIST

5/13/86

The following distribution list for Parcel 7 includes those entities that MEPA regulations require as part of the legal review as well as those parties who commented on the ENF filed with the Massachusetts Executive Office of Environmental Affairs and noticed in the Environmental Monitor on October 7, 1983.

CITY AGENCIES

Boston Redevelopment Authority

Stephen Coyle
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Others

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Attn: MEPA UNIT, Jackie Wilkins

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4003A

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

MICHAEL S DUKAKIS
GOVERNOR

JAMES S HOYTE
SECRETARY

July 7, 1986

Mr. Richard H. Rubin
Managing General Partner
Congress 7 Limited Partnership
Suite 1001, 265 Franklin Street
Boston, Massachusetts 02110

Re: Revisions to Scope for Hotel and Office Building (EOEA #4946)

Dear Mr. Rubin:

I have reviewed your notice of project change dated May 28, 1986, the results of the public meeting held on June 12, 1986, and the correspondence received on your notice. Based upon the factors cited in 301 CMR 10.16(2), it is the opinion of the Secretary that the change in project plan does not significantly increase the environmental consequences of the project. Nonetheless, the lapse of time since the issuance of the original scope and the comments received on the notice lead to the need for some modifications to the scope for the EIR. These are detailed below.

Alternatives - The new, proposed plan may serve as the primary alternative for the EIR. It must be fully analysed and compared to the no build alternative, as outlined in the original scope. In addition, a true reduced scale alternative (approximately 60% of the proposed size) should be developed to allow testing of some of the design issues raised in the attached comments.

Traffic - The Boston Redevelopment Authority scope for traffic analyses is attached hereto and incorporated by reference into the MEPA scope for the project. It is the intent of both MEPA and the BRA that a single, comprehensive document serve for both review processes.

Air Quality - Special attention should be paid to the JFK Federal Building day care center, located across the street from the project. Note also that Volume 9 is no longer an acceptable model to MEPA or DEQE. Model selection and choice of parameters should be approved by the DEQE before modeling commences.

Visual/Aesthetic - The design issues raised in the attached comments should be directly addressed in the EIR. This should include a full discussion of design development and comparison of both the proposed plan and the reduced scale alternative to the sequence of design guidelines developed for the property. In addition, a more general discussion of urban design and the "fit" of the project into its context should be provided. Finally, although I understand that no formal BCDC review will be required for this project, the design studies should be presented to and discussed with the BSA, the BPA, and other interested groups during the preparation of the EIR.

Construction Impacts - Construction impacts and mitigation should be treated fully in the EIR. This section should include control of physical effects, such as ground water impacts, dewatering disposal, excavation, pile driving, dust, and the like. Attention should also be paid to the effects on vehicular and pedestrian traffic during construction and to any potential conflicts with the proposed Depressed Central Artery Project.

History/Archeology - The review of the project by the Massachusetts Histroical Commission under M.G.L, Chapter 9, Section 26C should be incorporated into the EIR. The guidance of the MHC should be sought to determine the type and extent of investigation and analysis required.

With these amendments, the original scope for the EIR can stand. The comments received on the project change notice are attached to guide the preparation of a thorough and responsive EIR.

Sincerely,

Steven C. Davis, for

Samuel G. Mygatt
Assistant Secretary
Environmental Impact Review

Attachments: Wessling (BRA) 6/12/86
Smith/Jones (BSA) 6/19/86
Coyle (BRA) 6/20/86
Bracken (BPA) 6/23/86

BOSTON
REDEVELOPMENT
AUTHORITY

Raymond L. Flynn

Stephen Coyle

One City Hall Square
Boston, MA 02201
(617) 722-4300

RECEIVED
JUN 18 1986
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

June 12, 1986

Mr. Samuel Mygatt
Executive Office of Environmental Affairs
MEPA Unit
100 Cambridge Street
Boston, MA 02202

Dear Mr. Mygatt:

For your general information, I have enclosed a copy of the zoning amendment which established the Boston Civic Design Commission. The Commission will be composed of eleven members to be appointed by the Mayor. At last six of the members shall be urban design professionals and at least one shall have expertise in historic preservation or architectural history.

With respect to the MEPA scoping of Parcel 7, I have enclosed the scope of work required by the Boston Redevelopment Authority in consultation with the City's Traffic and Parking Department. The construction projects to be incorporated in the no-build evaluation are listed on the third page and do include the redevelopment of Government Center Garage. The Traffic and Parking Department has requested that a proposed 180-space parking facility also be included as a background project. The proposed development is in the planning stages only and does not necessarily have BRA support. Nonetheless, we did agree that it could be included in the analysis.

You also requested copies of all BRA guidelines for the site. I believe the developer promised to provide them but if not, I would be happy to send the guidelines to you.

Sincerely,

Pamela Wessling

Pamela Wessling
Project Coordinator

L1/H

Boston Redevelopment Authority is an Equal Opportunity Affirmative Action Employer • Equal Housing Opportunity

May 8, 1986

Ref: 1526

Ms. Pam Wesling
Project Coordinator
Boston Redevelopment Authority
One City Hall Square
Boston, MA 02201

Re: Comprehensive Transportation Study Update
Parcel 7 Development
Boston, Massachusetts

Dear Pam:

As a follow up to our meeting on May 6, 1986, I spoke with Joe Beggan of the Boston Transportation Department to discuss the outstanding issues related to the Comprehensive Transportation Study to be prepared by Vanasse/Hangen. The following is the result of that conversation.

1. Two new turning movement counts will be taken at Sudbury St./Cambridge St. and at Chardon St./Washington St./Artery off-ramp during the morning (7-9 AM) and afternoon (4-6 PM) peak periods. A friday will be used as the observation day to remain consistant with existing data.

2. New 24-hour mechanical recorder counts will be taken on Congress Street and Blackstone Street adjacent to the site.

3. We will update AM and PM peak hour pedestrian counts at the Congress St./Sudbury Street intersection. Our original inclination was that new pedestrian counts were not required, but reconsideration indicated the desirability of doing an update at one location.

4. The proposed parking facility beneath Curley Park will be included as a background project in the No-Build analysis.

Based on the above and on the May 6 meeting, we have revised the transportation study scope for the project. A copy is attached for your files. If you or any other City staff feel the need to discuss the scope of the study any further, please feel free to contact me. Otherwise, we anticipate starting work as soon as contractual matters can be taken care of.

Very truly yours,

VANASSE/HANGEN

Raymond S. Niedowski, P.E.
Senior Project Manager

RSN/dms

cc: Harris Band, SOM
Susan Sloan Rossiter, BTD
Joe Beggan, BTD
Rich Hangen, VH
Dave Bohn, VH
Files

1526/586/trl

PROPOSED SCOPE OF SERVICES
COMPREHENSIVE TRANSPORTATION ASSESSMENT STUDY
UPDATE OF PARCEL 7 DEVELOPMENT
BOSTON, MASSACHUSETTS

A. DESCRIPTION OF SERVICES

Vanasse/Hangen (VH) will perform the necessary transportation planning and engineering tasks involved in the preparation of an updated comprehensive transportation assessment study of the proposed Parcel 7 development, including the following:

- A definition of existing traffic, parking, pedestrian and transit conditions in the study area.
- An evaluation of the project's short term traffic impacts related to construction activity.
- An evaluation of long term impacts on traffic, parking, public transportation, pedestrians, and the Haymarket operation.
- Consideration of anticipated loading/service facilities and on-site circulation.
- Identification of appropriate mitigation measures to reduce project impacts.

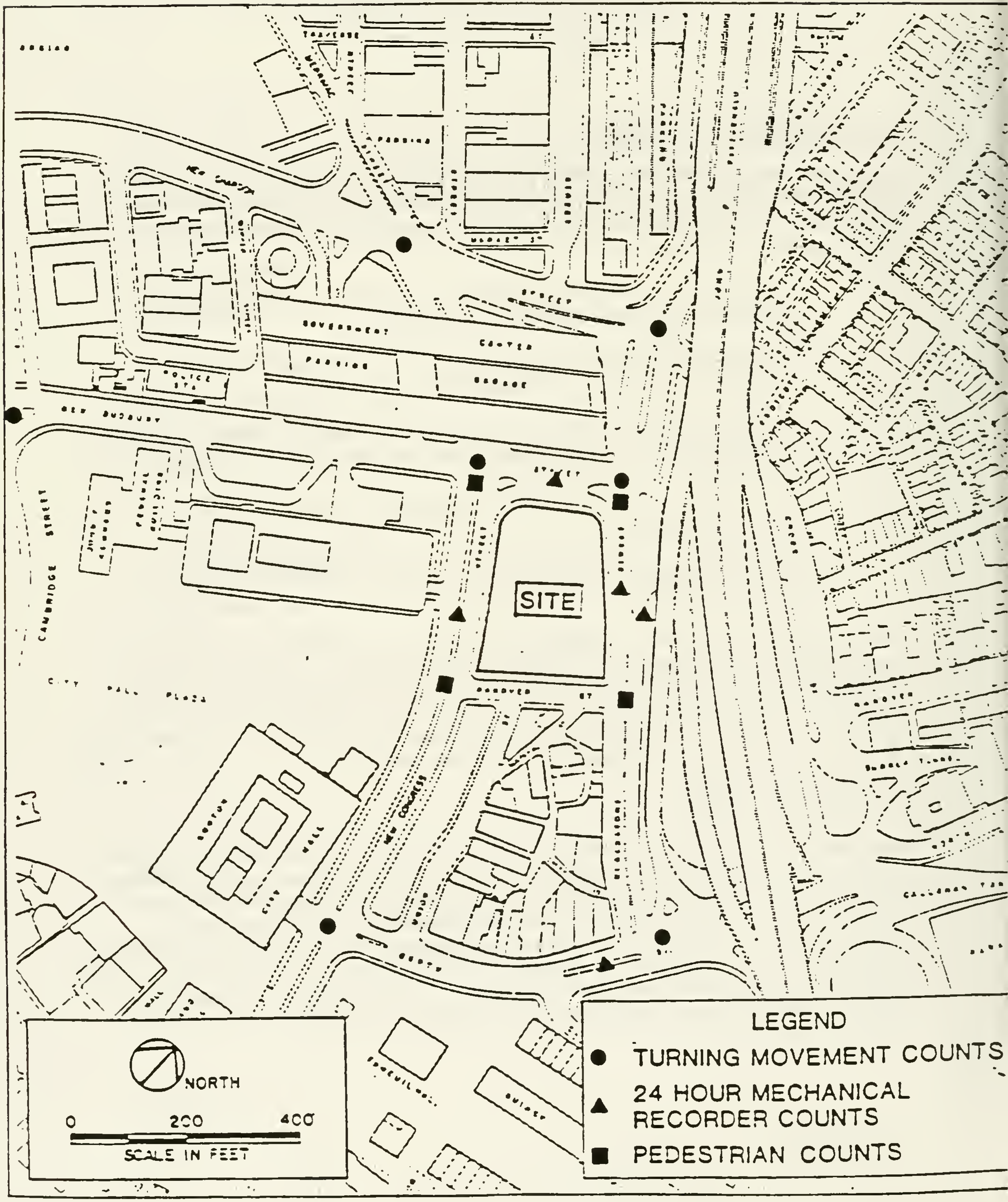
The work effort has been designed to build upon previous and ongoing transportation studies being conducted in the area, particularly an unpublished traffic report prepared by VH for a similar development proposal in 1984 on Parcel 7. It will take into consideration other projects which will be completed in the same time frame and subsequently exert an influence on areawide travel demands.

B. LIMITS OF WORK

The study will include the same area considered in the earlier Parcel 7 study plus two additional intersections. The original study included the area bounded by New Sudbury, Blackstone, North and New Congress Streets, plus the intersection of New Chardon St./New Congress St./Merrimac Street. The two new intersections to be added include New Sudbury St./Cambridge St. and New Chardon St./Washington Street. Figure 1 shows specific intersection locations to be analyzed, along with traffic counts to be obtained or which are available as part of the earlier study.

Figure 1

Study Area and Traffic Survey Locations



C. DEFINITION OF TASKS

Task 1 - Data Inventory/Environmental Baseline Conditions

Vanasse/Hangen will compile data on supply and usage characteristics of the transportation system within the study area. New data to be collected as part of this effort will be limited to several locations where traffic counting is necessary to update or expand upon available data, including the two new intersections cited in Part B. All counts will be conducted on a Friday to include the effects of the Haymarket operation on Blackstone and Hanover Streets. Both AM and PM peak period turning movement and pedestrian counts will be taken, supplemented by mechanical recorder counts on study area streets. An 11-hour manual turning movement count has recently been conducted at the North Street/Central Artery off-ramp/Blackstone Street intersection for another project. Parking supply in the study area will be defined. In addition, we will contact MBTA representatives to ascertain the latest data available on transit usage levels and improvement plans.

All other baseline transportation data will be derived from previously compiled information and reports.

Task 2 - Evaluation of Future Conditions (Long-Term) following completion of the project.

2.1 Alternatives to be Analyzed

The following time frames will be analyzed:

- No Build (including only background projects anticipated to be completed) - 1989.
- Full Build (addition of project-related impacts on existing street pattern) - 1989.

Building construction projects to be included in the No Build evaluation are the North Station Urban Renewal project (GSA Building), Marketplace Center, Government Center Garage/Office/Retail project, 75 State Street (formerly 99 State Street), and the Custom House development at Milk/Broad Streets. Transportation projects will include continuing improvements to the Green and Orange Lines, and the potential qualitative effects on Blackstone Street due to the Central Artery depression project.

2.2 Evaluation of Transportation Impacts

New trips on all modes expected to be created by the proposed development will be added to demands currently carried by the existing transportation infrastructure. AM, PM peak hours and daily figures will be developed and analyzed. Impact identifications will be carried out by completing the following tasks:

1. Traffic Impacts - Volume/capacity (v/c), Available Reserve Capacity (ARC) and Level of Service (LOS) calculations at analysis intersections identified in the study area figure. An assessment of delays and queuing problems in the study area will also be conducted.

2. Parking Impacts - Increased parking demand will be compared with existing and projected available supply to identify deficiencies.

3. Public Transportation - Increased ridership on the MBTA's rapid transit, commuter rail and local/express bus services will be identified.

4. Pedestrian Impacts - An evaluation of pedestrian conditions on sidewalks adjacent to the site and in the study area will be conducted for the AM and PM peak periods. Pedestrian pathways and linkages to other area attractions will be identified.

5. Loading/Service/On-Site Circulation - The proposed loading and service facilities will be defined and evaluated and their functionality analyzed. Truck/service deliveries and courier service to the site will also be estimated.

Task 3 - Evaluation of Short-Term (construction period impacts)

Vanasse/Hangen will evaluate the impacts of the following:

1. Mode of arrival for construction work trips.

2. Parking for Construction Workers and Construction Materials deliveries.

3. Times and routes of truck movements and construction activities. Where possible, these activities will be coordinated with other ongoing projects.

4. Temporary storage of construction equipment and materials.

5. The need for street closures or partial closures will be defined.

Task 4 - Mitigation Measures - Development of an Access Plan

Mitigation measures which would lessen the impacts of the proposed project will be identified. The resultant effect of these measures will be determined through application of either analysis techniques identified under Task 2 or through appropriate qualitative review.

Specific mitigation measures to be considered include:

- Roadway improvements
- Transit pass subsidies
- Differential parking fees/rate structure
- Pedestrian and transit connections/improvements
- Ridesharing/Vanpooling
- Other alternatives to be identified
- Monitoring and enforcement measures

The result of this four task effort will be a summary report defining work performed during the study and documentation of study process, procedures and findings, as well as an Access Plan which identifies proponent commitments to mitigate significant project impacts.

BSA

[illegible]

June 19, 1986

RECEIVED

JUN 23 1986

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

Mr. James S. Hoyte
Secretary of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

RE: HOTEL & OFFICE BUILDING - CONGRESS and HANOVER ST., BOSTON
EOEA #4946

COMMENTS ON NOTICE OF PROJECT CHANGE

Dear Mr. Secretary:

We wish to submit the following written comments and the attached materials as requested by Messrs. Sam McGatt and Steve Davis at a meeting held at the MEPA offices June 12, 1986. We represent the Urban Design Committee of The Boston Society of Architects.

As members of a Design Review Team of the Boston Society Architects, requested by the Boston Redevelopment Authority and the BSA in the Fall of 1984, we served as an impartial design review body for the Congress 7 Limited Partnership and its former architect, Cambridge Seven Associates, in providing design critique and comments for the 1983 proposal contained in the original Environmental Notification Form. Copies of materials reviewed by our DATS Team and our subcommittee reports dated November 13, 1984 and July 23, 1985 are attached.

We appreciate the opportunity to comment on the current proposal which is the subject of the Notice of Project Change.

The Boston Society of Architects

305 Newbury Street
Boston, Massachusetts 02115
Telephone 617 267-5175

A Chapter of
the American Institute
of Architects

COMMENTS ON E.I.R. SCOPE

1. Important Urban Design Parcel:

Parcel 7, from an urban design point of view, is an absolutely critical site. The last remaining parcel from the Government Center Renewal Plan, the ultimate design for Parcel 7 must respond to a variety of often competing issues, including the historic character of the Blackstone Block, the open space of Curley Park, the high volumes of pedestrians along Congress Street, the pushcart operators of Blackstone Street, the "view corridor" to the Old North Church from Government Center Plaza. It also must respond to adjacent uses and architectural quality of City Hall, the Federal Building, the Government Center Garage (and its planned expansion) and, to a lesser extent, the North End.

We believe that the Environmental Impact Statement should clearly show how the current scheme has evolved out of not only the programmatic and functional needs of an office and hotel complex, (but also and more importantly) the unique context of the site.

2. Consider Density, Height, Bulk and Massing Issues:

Based on the presentation of the scoping session, we are led to believe that the 1986 proposal at 207 feet is simply a less dense (meaning not so tall) alternative to the 1983 tower scheme. In fact, Congress 7 and the BRA were actively pursuing a number of intermediate options during the early part of 1985. The E.I.R. should chronicle the evolution of the tower into its presently proposed form, in addition to describing other alternatives which the current designers, H.O.K., may have considered in arriving at the proposed scheme. We do note that the footprint of the current scheme occupies the entire site, as opposed to the prior scheme which did provide some open space at the ground level. The issues of density, height, bulk, and massing should be a carefully considered ingredient in the preparation of the E.I.R.

3. Evaluate Project based on established Urban Design Guidelines:

As the attached materials indicate, we are strong proponents of establishing design guidelines, particularly for publicly held parcels which are being advertised for private development, and then incorporating them into the developer selection and design review process. The guidelines for Parcel 7 emanated from the Government Center Renewal Plan but were reformulated by the BRA in its 1981 developer solicitation process. The 1983 scheme is wholly consistent with these guidelines. The 1986 scheme appears to be in conformance with the original Renewal Plan. We believe that an essential task of the E.I.R. will be to reconcile these guidelines, and to clearly articulate the set of design objectives to which the developer intends to respond. Please include guidelines for Pedestrian Pathways, View Corridors, Shadow Studies, Public Access, and Sidewalk Retail Activity and an evaluation of each.

4. Ongoing Review by the Boston Civic Design Commission:

While this development project has received considerable scrutiny over the past 3 years, and while the 1986 proposal is similar to the 1983 scheme, we believe that the current proposal represents, in effect, a new concept and should require the same close attention to the design process and to the resulting product which was given to the original scheme. The vehicle to accomplish this task has been recently commissioned by Mayor Flynn--the Boston Civic Design Commission. We believe that this body, whose membership is represented by local architects and design professionals, is a totally appropriate group to provide the ongoing design review function and to ensure that aesthetic representations set forth by the E.I.R. are carried forward into a built piece of Boston's environment which is worthy of the site's special significance.

We thank you for the opportunity to comment on this important development project. We look forward to the preparation of the D.E.I.R. and the ability to review the project in greater detail at that time.

Very truly yours,

For the Urban Design Subcommittee on Parcel 7

R. Jones

Randolph Jones AIA

Peter H. Smith

Peter Smith AIA

cc: D. Dixon
I. Bluestone
E. Padjen
J. Crissman
P. Hopkinson

Enc.

PS/ljt
1548C

BOSTON
REDEVELOPMENT
AUTHORITY

Raymond L. Flynn
[illegible]

Stephen Coyle
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One City Hall Square
Boston, MA 02201
(617) 722-4300

RECEIVED

JUN 23 [illegible]

OFFICE OF THE SECRETARY
OF ENVIRONMENTAL AFFAIRS

June 20, 1986

Secretary James S. Hoyte
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02602

RECEIVED

JUN 23 1986

OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

RE: Parcel 7 Project
EOEA 4946

Dear Secretary Hoyte:

I understand that at a June 12, 1986, meeting in connection with your review of the Government Center Parcel 7 Scoping Decision, the issue was raised as to whether the Boston Civic Design Commission would review the project. I would like to take this opportunity to comment on why the project will not be subject to such a review.

First, Parcel 7 does not technically come under the Design Commission's jurisdiction because of a July 1985 Boston Redevelopmen Authority Board vote that approved the project's schematic design. The Design Commission was meant to apply prospectively to projects which had not received schematic design approval by the BRA. Equity consideration and the legislative intent lead me to conclude that Parcel 7 is not covered by the ordinance.

Second, the Design Commission is not yet operational. Because the Design Commission was only recently established, its members have not been appointed; additionally, no operating procedures or regulations have been promulgated, nor have the other requisite steps been taken to achieve operational capacity.

The project's reduction in height alone from the initially approved 380' to the current 209' proposal indicates how far we have come during these months of design review. With the design changes to the project now underway, I believe the Parcel 7 project will be an excellent addition to Government Center.

Sincerely,

Stephen Coyle
Director

BRACKEN AND BARAM
33 MOUNT VERNON STREET
BOSTON, MASSACHUSETTS 02108
(617) 742-4950

THOMAS B BRACKEN
MICHAEL S BARAM
J RAYMOND MIYARES

RECEIVED
JUN 23 1986
OFFICE OF THE SECRETARY OF
ENVIRONMENTAL AFFAIRS

June 23, 1986

Mr. Samuel Mygatt
Executive Director
MEPA Unit
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, MA 02202

Re: EOEA No. 4946, Parcel 7
Government Center Urban Renewal Project
Boston, MA

Dear Sam:

The developer's Notice of Project Change shows that the present proposal is not as tall as the original development plan, but the massing remains the same. Therefore, at the meeting on June 12 to discuss the project, I requested, in behalf of the Boston Preservation Alliance, that the scope of the EIR include consideration of an alternative project consisting of less square footage and a further reduction in height. The Alliance believes that a project with lower buildings and less massing would be more compatible with the low-rise buildings in the adjoining Blackstone Historic District and the Faneuil Hall Marketplace. Moreover, the Alliance believes that a project on this site should maximize the openness of the space and preserve as broad a line of sight as possible from the Government Center Plaza to the Old North Church.

You asked the Alliance to set forth in writing a more detailed description of such an alternative. Specifically, the Alliance would like the developer to consider reducing the height of the portion of the project which adjoins the Blackstone Historic District to 125 feet, which is the maximum height of any building in the Blackstone block, most of which range from 60 to 70 feet. A building with a greater height of up to 175 feet then could be more appropriately placed at the other end of the parcel near the Government Center Garage. At the same time, the massing of the project, which presently consists of almost 500,000 square feet, should be reduced to not more than 300,000 square feet, including the parking spaces. By lowering the height of the buildings, particularly at the edge of the historic district, and reducing the massing, the project would be more in harmony with the surrounding neighborhood than is the developer's present plan, would better preserve this architecturally unique and historically significant area of Boston and otherwise minimize damage to the environment. Although a project of this size might not maximize the potential profits of a developer, it still would be economically feasible and a reasonable use of the space, assuming some development must take place on the parcel.

The Alliance urges you to include such an alternative in the new scope for the project.

Sincerely,

Thomas B. Bracken

TBB/sw
cc: Edward J. McCormack, Jr., Esq.
Richard H. Rubin
Richard Mertens
Susan Park, Executive Director,
Boston Preservation Alliance

The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
100 Cambridge Street
Boston, Massachusetts 02202

HAEL S. DUKAKIS
GOVERNOR

MES S. HOYTE
SECRETARY

July 7, 1986

Mr. Richard H. Rubin
Managing General Partner
Congress 7 Limited Partnership
Suite 1001, 265 Franklin Street
Boston, Massachusetts 02110

Re: Revisions to Scope for Hotel and Office Building (EOEA #4946)

Dear Mr. Rubin:

I have reviewed your notice of project change dated May 28, 1986, the results of the public meeting held on June 12, 1986, and the correspondence received on your notice. Based upon the factors cited in 301 CMR 10.16(2), it is the opinion of the Secretary that the change in project plan does not significantly increase the environmental consequences of the project. Nonetheless, the lapse of time since the issuance of the original scope and the comments received on the notice lead to the need for some modifications to the scope for the EIR. These are detailed below.

Alternatives - The new, proposed plan may serve as the primary alternative for the EIR. It must be fully analysed and compared to the no build alternative, as outlined in the original scope. In addition, a true reduced scale alternative (approximately 60% of the proposed size) should be developed to allow testing of some of the design issues raised in the attached comments.

Traffic - The Boston Redevelopment Authority scope for traffic analyses is attached hereto and incorporated by reference into the MEPA scope for the project. It is the intent of both MEPA and the BRA that a single, comprehensive document serve for both review processes.

Air Quality - Special attention should be paid to the JFK Federal Building day care center, located across the street from the project. Note also that Volume 9 is no longer an acceptable model to MEPA or DEQE. Model selection and choice of parameters should be approved by the DEQE before modeling commences.

Visual/Aesthetic - The design issues raised in the attached comments should be directly addressed in the EIR. This should include a full discussion of design development and comparison of both the proposed plan and the reduced scale alternative to the sequence of design guidelines developed for the property. In addition, a more general discussion of urban design and the "fit" of the project into its context should be provided. Finally, although I understand that no formal BCDC review will be required for this project, the design studies should be presented to and discussed with the BSA, the BPA, and other interested groups during the preparation of the EIR.

Construction Impacts - Construction impacts and mitigation should be treated fully in the EIR. This section should include control of physical effects, such as ground water impacts, dewatering disposal, excavation, pile driving, dust, and the like. Attention should also be paid to the effects on vehicular and pedestrian traffic during construction and to any potential conflicts with the proposed Depressed Central Artery Project.

History/Archeology - The review of the project by the Massachusetts Histroical Commission under M.G.L, Chapter 9, Section 26C should be incorporated into the EIR. The guidance of the MHC should be sought to determine the type and extent of investigation and analysis required.

With these amendments, the original scope for the EIR can stand. The comments received on the project change notice are attached to guide the preparation of a thorough and responsive EIR.

Sincerely,

Steven O. Davis, for
Samuel G. Mygatt
Assistant Secretary
Environmental Impact Review

Attachments: Wessling (BRA) 6/12/86
Smith/Jones (BSA) 6/19/86
Coyle (BRA) 6/20/86
Bracken (BPA) 6/23/86

HORITY

mond L. Flynn

hen Coyle

ity Hall Square
, MA 02201
722-4300

~~Additional Copy~~

st 5, 1986

RECEIVED
AUG 13 1986
REFER T | INITIAL | ANS. BY
HW
RS | | DATE
| | FILE

Mr. Richard H. Rubin
Managing General Partner
Congress 7 Limited Partnership
Suite 1001, 265 Franklin Street
Boston, MA 02210

Dear Mr. Rubin:

As work progresses on the schematic design for your proposed office/hotel project at Parcel 7, it is important that the public improvements proceed along the same schedule as the architectural design. Improvements at Parcel 7 should include those that are customarily the responsibility of the developer of any parcel, namely the paving of sidewalks and installation of street lights on the perimeter of the site.

The design specifications for sidewalks adjacent to Parcel 7 include acorn lighting, brick sidewalks with granite curbing and, to the extent practicable, the restoration of historic granite slabs on Hanover Street.

Additional improvements which are required for Parcel 7 are described below.

1. Child's Tot Lot

   A small playground for children should be built in Curley Park. Special attention should be paid to features which will ensure the safety of children who will use the lot, such as adequate fencing. The lot should contain an interesting variety of playground features as suits the available space.

2. New Congress Street Median

   The median strip of New Congress Street should be paved with brick. Treatment of the median should include granite planters and appropriate seasonal plantings with provision for maintenance as well as ten double acorn lanterns.

3. Pedestrian Crosswalks and Islands

All proposed crosswalks and islands should be paved in a combination of brick and granite.

4. Hanover Street

The area of Hanover Street from the steps of City Hall to the Expressway should be paved in granite.

5. Blackstone Street Median with Tree Park

This median area should be paved with brick, and metal tree gratings should be provided for the existing trees.

6. New Congress Street Curb Line/Parking Lane

The present New Congress Street parking lane should be paved in brick and the present curb line relocated accordingly. The resultant area should receive appropriate sidewalk treatment including trees and light fixtures, and planters similar to that described above for the New Congress median.

7. Union Street

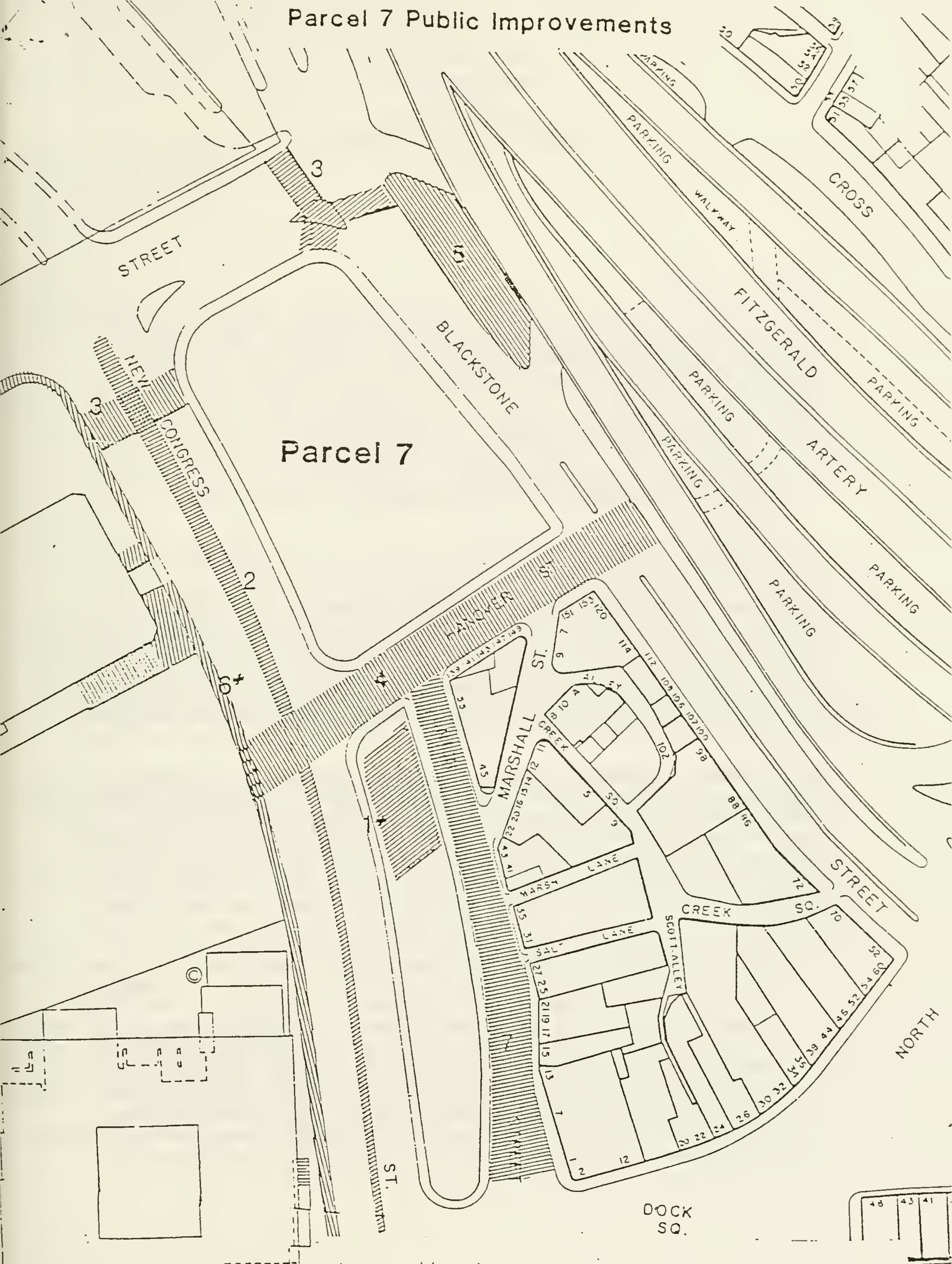
Union Street should be paved in granite.

If you have any questions, please contact Susan Allen, Assistant Director for Development and Urban Design, at 722-4300, extension 302. I look forward to reviewing your schematic design submission.

Sincerely,

Stephen Coyle
Director

Parcel 7 Public Improvements



✦ trees and benches should be provided with these items

CONGRESS 7
LIMITED PARTNERSHIP
SUITE 1001
265 FRANKLIN STREET
BOSTON, MASSACHUSETTS 02110
(617) 737-1120

SEP 2 2 1986
ANS. BY
DATE
FILE

August 28, 1986

Secretary James S. Hoyte
Executive Office of Environmental
Affairs
100 Cambridge Street
Boston, Massachusetts 02602

Re: Hotel and Office Building
Parcel 7, Government Center Urban Renewal Area
EOEA 4946

Dear Secretary Hoyte:

The revised scoping decision for the Parcel 7 development dated July 7, 1986, issued by your office directs the project proponent to study as an alternative in the Draft EIR a project reduced in scope by forty (40%) percent. The purpose of this letter is to seek the Secretary's concurrence that such alternate be deleted from the scope because no such alternative could be feasibly undertaken on the Parcel 7 site.

Development of Parcel 7 is undertaken against a background of physical, contractual and legal constraints, over which are superimposed additional urban design guidelines and criteria. These constraints, guidelines and criteria must be respected in any proposed development of Parcel 7, including a hypothetical alternative which is forty (40%) percent smaller than the project proposed by proponent. The following is a brief enumeration thereof:

1. Soil Conditions. Parcel 7 consists almost entirely of fille land, the fill having been emplaced during the nineteenth century to displace the Mill Pond, so called. The water table on the site is encountered at 10 feet below the current surface grade. Any structure of more than three storie on this site must be supported by deeply emplaced piles or caissons. In addition to such structural support, excavatio for below grade uses requires that the entire site be enclosed within a slurry wall to block the inflow of ground water.

2. Subway Tunnels. The northwest quadrant of the Parcel 7 site is encumbered by below grade easements for the existing orange line and green line subway tunnels. Above grade construction in this quadrant cannot be fully structurally supported by direct weight bearing to ground, but must be substantially cantilevered over the two subway tunnels. In addition to the extraordinary cost of such structure, the subsurface structural system effectively limits the height of a building on the northwest quadrant to nine stories or 112 feet.

3. Visual Easement. The BRA's disposition requirements for Parcel 7 mandate that no structure taller than forty-two (42') feet may be constructed in a diagonal corridor which bisects the site. This limitation forces project mass to the north and south of the view corridor. Whether the buildings of a height greater than forty-two (42') feet to the north and south of the corridor are dedicated to the same or different uses, they are forced to have separate cores for elevators, utilities and mechanical systems, thus incurring duplicate costs for these items.

4. Mandatory Parking/Below Grade Parking. Parcel 7 is one of only 3 parcels in the entire Government Center Urban Renewal Area for which parking in a specified amount or ratio is required. That parking ratio is three (3) spaces for every 4 hotel rooms. The BRA has coupled this mandatory parking requirement with an urban design requirement that parking be placed below grade. The provision of parking below grade is complicated by the unavailability of the northwest quadrant for such use, creating difficult and irregular parking floors below grade, plus the expense of deep excavation in filled land.

5. Hotel Room Rates. As set forth in a letter from our counsel to Samuel Mygatt dated June 20, 1986, the hotel to be developed on Parcel 7 is to have an average undiscounted room rate ten (10%) percent lower than the average undiscounted room rates of certain designated existing hotel properties in the immediate vicinity of Parcel 7. The ten (10%) percent below market requirement is a significant financial limitation. Each of the designated properties was built at least

six to eight years earlier than proponent's hotel will be. Because of the compounded effect of construction cost escalation in that six to eight year period, their room rates reflect capital costs significantly lower than those to be incurred at Parcel 7.

6. Public Improvements. Redevelopment of Parcel 7 requires extraordinary expenditures for public, off-site improvements. Special paving and lighting is to be applied on each of the four sidewalks surrounding the site as well as to Hanover Street. These public improvements have an estimated cost in excess of $4,000,000.

The proponent's development program for Parcel 7 consists of approximately 432,000 square feet of above grade space, of which 113,150 square feet is dedicated to office use, 309,000 square feet dedicated to hotel use, and 10,000 square feet dedicated to retail use. We are directed to study a project of 259,200 square feet. Since no suggestion is made as to how the forty (40%) percent program reduction should be made, we have analyzed several possible responses, assuming in each case that the 10,000 square feet of Haymarket oriented retail space, a major project amenity, will remain:

A. Delete Office Space/Reduce Hotel. In this response, all office use is deleted and only hotel use is built upon the site in a hotel having 253,200 square feet. Since we have assumed that the purpose of this exercise is to study a project of less overall mass in juxtaposition to the Blackstone Block than our current proposal, we have not assumed that the northern end of the site where the office space is now proposed would remain undeveloped, but rather that the single hotel use would be spread out to occupy the development parcel. Because of the forty-two (42') foot visual easement corridor, such a hotel must have twin elevator and mechanical cores, one lying to the north and one to the south of the visual easement. However, only approximately 300 rooms and ancillary function space are accommodated. The double core costs and the duplicate exterior wall costs, to cite only two of the premiums in this configuration, make this configuration equivalent to the construction of two hotels, each of only 150 rooms. As proformas attached to this letter indicate, the capital cost per room of this configuration renders such a project infeasible.

B. Forty (40%) Percent Overall Reduction. In this configuration, the office building is reduced to 68,000 square feet and the hotel is reduced to 185,000 square feet. Retaining the same ratio of room and non-room space and average size per room as is in our present design, the hotel would contain only approximately 225 rooms and would require 169 parking spaces, which, in turn, would require three below grade levels.

Proforma capital cost and operating statements for each of alternate A and B are enclosed. They clearly demonstrate that neither is economically feasible, neither being capable of generating any market level of return on invested risk capital. Accordingly, proponent respectfully suggest that further study of any forty (40%) percent reduced program is pointless, for it is tantamount to the no-build alternative already to be studied. We therefore ask that the revised scope be amended to delete any requirement for the study of such a reduced alternate, or, alternatively, that the revised scope be amended to limit the nature of such a study to the economic analysis presented herein, with no requirement to present sketches or studies for a design of such an alternate.

Very truly yours,

CONGRESS 7 LIMITED PARTNERSHIP

BY:______________________________
Richard H. Rubin,
Managing General Partner

cc: David E. Nassif, General Partner
Timothy Jaroch, Esquire
Persons listed on attached
Distribution List

Appendix B Comments by Reviewers

Comments received on the Draft Environmental Impact Report (EIR) will be added here and responded to as part of the Final EIR.

This Draft EIR will be distributed to the city, state and Federal agencies and interested parties listed below. This list includes those entities that MEPA regulations require as part of the legal review of this document, community groups with a special interest in the project, and others who attended the initial scoping meeting or have commented on the project since the filing of the Environmental Notification form.

CITY AGENCIES

Boston Redevelopment Authority

Stephen Coyle
Boston Redevelopment Authority (BRA)
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Boston, MA 02201

Owen Donnelly
BRA
One City Hall Plaza
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Paul McCann
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One City Hall Plaza
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Alfred Howard
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One City Hall Plaza
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Robert Kroin
BRA
One City Hall Plaza
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Others

Clerk
City of Boston
Boston City Hall
Boston, MA 02201

Michael O'Neil/Libby Blank
Engineering Department
Boston Water and Sewer Commission
10 Post Office Square
Boston, MA 02109

Jeff Boehm
Boston Air Pollution Control Commission
1 City Hall Square
Boston, MA 02201

Phil Caruso
Boston Parking and Traffic Commission
1 City Hall Square
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Carmine Buono
Boston Department of Public Works
1 City Hall Square
Boston, MA 02201

Judy McDonough
Survey Director
Boston Landmarks Commission
Environmental Department
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STATE AGENCIES

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Heidi O'Brien
Division of Air Quality Control
DEQE
1-11 Winter Street
Boston, MA 02108

Barry S. Porter
Division of Air Quality Control
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Mike Maher
Metropolitan Boston/Northeast Regional Office
DEQE
323 New Boston Street
Boston, MA 01801

Edward McDonald
Deputy Regional Environmental Engineer
Metropolitan Boston/Northeast Regional Office
323 New Boston Street
Boston, MA 01801

Others

Secretary
Executive Office of Environmental Affairs (EOEA)
Leverett Saltonstall Building - 20th Floor
100 Cambridge Street
Boston, MA 02201
Attn: MEPA UNIT, Jackie Wilkins

Department of Environmental Management
Bureau of Solid Waste Disposal
100 Cambridge Street
Boston, MA 02202

Jonathan G. Truslow
Executive Director
Metropolitan Area Planning Council
110 Tremont Street
Boston, MA 02108

Department of Public Works (DPW)
Environmental Section
100 Nashua Street
Boston, MA 02114

Edward Cox
DPW, District 8
400 D Street
Boston, MA 02210

Greg Predergast
DPW
100 Nashua Street
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Bill Oliver
DPW
Central Artery Project
100 Nashua Street
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S. Francis Bruno
DPW
100 Nashua Street
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Martha Reardon
Associate Commissioner
DPW
100 Nashua Street
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Jean Haggerty
Metropolitan District Commission
20 Somerset Street
Boston, MA 02108
Attn: Environmental Planning Office

Department of Community Affairs
One Ashburton Place
Boston, MA 02108

Elizabeth Murray
Executive Office of Transportation
and Construction (EOTC)
One Ashburton Place, Room 1510
Boston, MA 02108

Cecile Papazian
EOTC
10 Park Plaza, Room 3510
Boston, MA 02116-3969

Massachusetts Bay Transportation Authority
50 High Street
Boston, MA 02110

Valerie Talmage
Executive Director
Massachusetts Historical Commission
294 Washington Street
Boston, MA 02108

Brona Simon
Massachusetts Historical Commission
294 Washington Street
Boston, MA 02108

State Clearinghouse
One Ashburton Place
Boston, MA 02108

Attorney General
State House, Room 373
Boston, MA 02133

Arnorld R. Stymest
Massachusetts Aeronautics Commission
Boston-Logan Airport
Boston, MA 02128

NTERESTED PARTIES

Oscar Padgen
Boston Society of Architects
320 Newbury Street
Boston, MA 02115

Susan Park, Chariperson
Boston Preservation Alliance
Box 1165
Boston, MA 02103

Thomas B. Bracken
Bracken and Baram
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Boston, MA 02108

Paul A. Mooney
President
Downtown North Associates, Inc.
Boston, MA 02114

Joseph Matara
Haymarket Pushcart Association
c/o Dairy Fresh Candies
57 Salem Street
Boston, MA 02113

Salvatore J. Tecce
President
61 N. Washington Street
Boston, MA 02114

4003A

JOHN CANNON

PREFERRED SCHEME

PROPOSED STATEMENT OF INCOME & EXPENSE PARCEL 7, GOVERNMENT CENTER, 375 ROOM HOTEL, BOSTON, MASSACHUSETTS

	1989 (9 mos)	1990	1991
Full YEAR	7,540,000 33,328		12,864,012 (51,0
Revenues:			
Rooms	7,573,328	11,203,608	12,753,000
Foods & Beverage	3,689,920	5,539,920	6,378,320
Telephone	244,400	367,120	423,280
Minor Operations (Health Club, Retail, etc.)	150,800	225,680	260,000
Public Room Sales	130,000	194,480	223,600
TOTAL	11,788,448	17,530,808	20,038,200
Department Costs & Expenses:			
Rooms	1,984,212	2,666,459	2,780,154
Food & Beverage	3,151,192	4,598,135	5,160,061
Telephone	232,180	348,764	402,116
TOTAL	5,367,584	7,613,35~~7~~ 8	8,342,331
Gross Operating Income:	6,420,864	9,917,451	11,695,869
Undistributed Operating Expenses:			
Administrative & General	931,287	1,261,498	1,302,483
Basic Management Fee	471,538	701,232	801,528
Franchise Fee	447,961	665,990	761,452
Marketing	436,173	578,517	581,108
Energy	530,048	753,825	841,604
Property Operation & Management	506,903	735,294	821,566
TOTAL	3,323,910	4,69~~7~~,356 6	5,109,741
Cash Flow Available for Fixed Charges, Replacement of Fixed Assets, Incentive Fees, Debt Service, Linkage and Distributions to Owners:	3,096,954	5,220,095 1	6,586,128

Fixed Charges:			
Property Taxes	612,999	876,540	901,719
Insurance	235,769	298,024	300,573
TOTAL	848,768	1,174,564	1,202,292
Cash Flow Available for Replacement of Fixed Assets, Incentive Management Fee, Linkage, Debt Service and Distribution to Owners:	2,248,186	4,045,531	5,383,836
Replacement of Fixed Assets	235,769	438,270	500,955
Linkage (322,250 sq. ft. - 100,000 sq. ft. = 222,250 sq. ft. x $6/sq. ft./7 yrs =	190,500	190,500	190,500
TOTAL	426,269	628,770	691,455
Cash Flow Available for Incentive Management Fee, Debt Service and Distribution to Owners:	1,821,917	3,416,761	4,692,381

Incentive fee is 25% of Net Cash Flow after Debt Service. In this case, there will be no Net Cash Flow after Debt Service during the first 3 years of operation.

STATISTICS:

Percentage of Occupancy	63%	68%	75
Number of Occupied Rooms	65,000	92,976	102,024
Average Room Rate	$116.00	$120.50	$125.50

PARCEL 7 GARAGE
INCOME AND EXPENSES
375 SPACES - VALET PARKING (101,490 SQ. FT.)

	1989 (9 mos)	1990	1991
Income:			
16 spaces - no charges (Used by Hotel Management) 1,950 autos x $0.00 =	0	0	0
94 spaces - utilized by hotel guests @ $4.00 per night for first year (See Statistics below) 16,250 autos x $4.00 =	65,000	73,125	81,250
265 spaces - utilized by the public @ $8.00 per day 260 days x $8.00 x 265 =	551,200	585,650	620,100
25% of publicly used spaces (265) x 4 hours per day @ $1.50 per hour = 7.00 /8.00			
67 spaces x $6.00 per day x 260 days =	104,520	121,940	139,360
15% of publicly used spaces (265) @ $4.00 per day each weekend (104 days) 265 spaces x $4.00 per day x 104 days =	110,240	124,020	137,800
TOTAL	830,960	904,735	978,510
Expense:			
Payroll			
Managers (3) @ $21,000 Plus 26% fringe = $26,460 per year per manager =	79,380	+.06 84,143	+.06 89,192
Parkers - 4-day shift 4 - 4:00pm to 12:00am 8 8 2 - 12:00am to 8:00am @ 5 days, 6 weekends 2 days All at $5.00/hour + 26% fringe	62,490	172,224	182,557

Cleaning - contract (sweep, etc.)	26,000	06 27,560	29,136
Security			
a) Television - contract	16,125	17,093	18,119
b) One Jeep - amortized over 4 years and insurance 3 men @ $5.00/hour plus 26% fringes @ $6.30/hour	55,188	58,499	62,009
Insurance Fire, extended coverage, liability and garage package @ $.47 per sq. ft.	47,700	50,562	53,596
Miscellaneous - accounting, legal, permits, etc.	25,000	26,500	28,090
Real Estate Tax	125,000	132,500	140,450
Utilities	30,000	8 31,~~0~~00	33,708
TOTAL	416853 → 572,483	606,817	643,149
Net for Debt and Distribution to Owners:	258,477	297,918	335,361
		600881	636857

STATISTICS

Expenses will increase 6% per year. Income will increase $.25 per hour per year except in the case of overnight garage accommodation in which case it will increase $.50 per day, and in the case of all day parkers in which case it will increase by $.50 per day.

GOVERNMENT CENTER - PARCEL 7
BOSTON, MASSACHUSETTS
OFFICE BUILDING PRO-FORMA

VACANCY?

	1989 (9 mos)	1990 2% esc.	1991
Income:			
Office - 88,000 sq. ft. @ $35.00 per sq. ft.	(12 mo) 3,080,000	3,141,600	3,204,432
Retail - 8,000 sq. ft. @ $45.00 per sq. ft.	360,000	367,200	374,544
TOTAL GROSS INCOME	3,440,000	3,508,800	3,578,976
Expenses:			
An expense "stop" of $8.86 per sq. ft., including linkage, commencing from the first day of occupancy is an integral part of each office lease.	88,000 779,680	779,680	779,680
Rental leases are "net, net, net."			
Non "Pass-through Budget"	30,000	5% 31,500	33,000
TOTAL EXPENSES	809,680	811,180	812,680
Net for Debt and Owners Distribution:	2,630,320	2,697,620	2,766,296
Conclusion:			
Cost:	84,379,227 ?		
Net Income for Debt Service and Distribution to Owners:	4,710,714	6,412,299	7,794,038

The third, or first, stabilized year of net income will yield a 9.2369% return on investment.

ALTERNATE SCHEME A

40% OVERALL REDUCTION OF PROPOSED STATEMENT OF INCOME & EXPENSE, 375-ROOM HOTEL, PARCEL 7, GOVERNMENT CENTER
BOSTON, MASSACHUSETTS

	1989 (9 mos)	1990	1991
Revenues:			
Rooms	4,543,997	6,722,165	7,651,800
Foods & Beverage	2,213,952	3,323,952	3,826,992
Telephone	146640 ~~145,640~~	220,272	253,968
Minor Operations (Health Club, Retail, etc.)	90,480	135,408	156,000
Public Room Sales	78,000	116,688	134,160
TOTAL	7,073,069	10,518,485	12,022,920
Department Costs & Expenses:			
Rooms	1,190,527	1,599,875	1,668,092
Food & Beverage	1,890,715	2,758,881	3,096,037
Telephone	139,308	209,258	241,696
TOTAL	3,220,550	4,568,014	5,005,825
Gross Operating Income:	3,852,519	5,950,471	7,017,095
Undistributed Operating Expenses:			
Administrative & General	558,772	756,899	781,490
Basic Management Fee	282,923	420,739	480,917
Franchise Fee	268,777	399,594	456,871
Marketing	261,704	347,110	348,665
Energy	318,029	452,295	504,962
Property Operation & Management	304,142	441,176	492,940
TOTAL	1,994,347	2,817,813	3,065,845
Cash Flow Available for Fixed Charges, Replacement of Fixed Assets, Incentive Fees, Debt Service, Linkage and Distributions to Owners:	1,858,172	3,132,658	3,951,250

Fixed Charges:			
Property Taxes	367,799	525,924	541,031
Insurance	141,461	178,814	180,344
TOTAL	509,260	704,738	721,375
Cash Flow Available for Replacement of Fixed Assets, Incentive Management Fee, Linkage, Debt Service and Distribution to Owners:	1,348,912	2,427,920	3,229,875
Replacement of Fixed Assets	141,461	289,962	300,573
Linkage (322,250 sq. ft. - 100,000 sq. ft. = 222,250 sq. ft. x $6/sq. ft./7 yrs =	136,843	136,843	136,843
TOTAL	278,304	426,805	437,416
Cash Flow Available for Incentive Management Fee, Debt Service and Distribution to Owners:	1,070,608	2,001,115	2,792,459

Incentive fee is 25% of Net Cash Flow after Debt Service. In this case, there will be no Net Cash Flow after Debt Service for the foreseeable future.

SHOULD CHANGE

STATISTICS:

Percentage of Occupancy	63%	68%	75%
Number of Occupied Rooms	65,000	92,976	102,024
Average Room Rate	$116.00	$120.50	$125.50

PARCEL 7 GARAGE
INCOME AND EXPENSES
225 SPACES - VALET PARKING (72,066 SQ. FT.)

	1989 (9 mos)	1990	1991
Income:			
10 spaces - no charges (Used by Hotel Management) 1,170 autos x $0.00 =	0	0	0
56 spaces - utilized by hotel guests @ $4.00 per night for first year (See Statistics below) 9,750 autos x $4.00 =	39,000	43,875	48,750
159 spaces - utilized by the public @ $8.00 per day 260 days x $8.00 x 159 =	330,720	351,390	372,060
25% of publicly used spaces (159) x 4 hours per day @ $1.50 per hour =			
40 spaces x $6.00 per day x 260 days =	62,712	73,164	83,616
15% of publicly used spaces (159) @ $4.00 per day each weekend (104 days) 159 spaces x $4.00 per day x 104 days =	66,144	74,412	82,680
TOTAL	498,576	542,841	587,106
Expense:			
Payroll			
Managers (3) @ $21,000 Plus 26% fringe = $26,460 per year per manager =	79,380	84,143	89,192
Parkers - 4-day shift 8 4 - 4:00pm to 12:00am 2 - 12:00am to 8:00am @ 5 days, 6 weekends 2 days All at $5.00/hour + 26% fringe	121,867	172,224	182,557

Cleaning - contract (sweep, etc.)	26,000	27,560	29,136
Security			
a) Television - contract	16,125	17,093	18,119
b) One Jeep - amortized over 4 years and insurance 3 men @ $5.00/hour plus 26% fringes @ $6.30/hour	55,188	58,499	62,009
Insurance			
Fire, extended coverage, liability and garage package @ $.47 per sq. ft.	28,620	30,337	32,157
Miscellaneous - accounting, legal, permits, etc.	25,000	26,500	28,090
Real Estate Tax	75,000	79,500	84,270
Utilities	18,000	18,600	20,225
TOTAL 445180	~~385,803~~	514,456	545,755
Net for Debt and Distribution to Owners: OK	53,396	28,385	41,351

STATISTICS

Expenses will increase 6% per year. Income will increase $.25 per hour per year except in the case of overnight garage accommodation in which case it will increase $.50 per day, and in the case of all day parkers in which case it will increase by $.50 per day.

GOVERNMENT CENTER - PARCEL 7
BOSTON, MASSACHUSETTS
OFFICE BUILDING PRO-FORMA

	1989 (9 mos)	1990	1991
VACANCY?			
Income:			
Office - 52,800 sq. ft. @ $35.00 per sq. ft.	1,848,000	1,884,960	1,922,659
Retail - 4,800 sq. ft. @ $45.00 per sq. ft.	216,000	220,320	224,726
TOTAL GROSS INCOME	2,064,000	2,105,280	2,147,385
Expenses:			
An expense "stop" of $8.86 per sq. ft., including linkage, commencing from the first day of occupancy is an integral part of each office lease.	OK 467,808	467,808	467,808
Retail leases are "net, net, net."			
Non "Pass-through Budget"	30,000	31,500	33,000
TOTAL EXPENSES	497,808	499,308	500,808
Net for Debt and Owners Distribution:	1,566,192	1,605,972	1,646,577
Conclusion:			
Total Project Cost: (See Proforma)	67,740,810		
Net Income for Debt Service and Distribution to Owners:			
Hotel	1,070,608	2,001,115	2,792,459
Garage	53,396	28,385	41,351
Office Building	1,566,192	1,605,972	1,646,577
TOTAL	2,690,196	3,635,472	4,480,387
Percentage return on investment:	4.0922%	5.5300%	6.8153%
	3.9713	5.3667	6.614

NOTES ON 40% OVERALL REDUCTION OF PROJECT AT PARCEL 7
BOSTON, MASSACHUSETTS

Indirect Costs:

a. Already paid $1,100,000. There will be no saving because we will have to start all over on the residual buildings.

f. Basic accounting services will remain the same. Only the amounts themselves will actually change. Therefore, the credit is substantially less than 40%.

j. See comment in "f" above.

h. See comment in "f" above.

k. See comment in "f" above.

l. We have spent, to date, $235,000 in legal fees, and will never-the-less, recognize significant savings in legal fees, dependent on length of permit process.

o. We have already spent $94,400 on project supervision. We will realize only small savings from cutting this program at this time.

q. We will save $900,000 ($6,000 per guest room not built (150 rooms)). All of the other equipment for public areas--kitchens, restaurants, health club, etc., will still have to be supplied.

r. Street scapes will be constructed as currently requested by the Boston Redevelopment Authority.

Financial Costs:

These costs have been pro-rata reduced to indicate the overall reduction in project costs, where possible. We will be unable to reduce land rent without BRA permission, or appraisal costs in any case.

Construction Costs:

e. Whatever is constructed on this lot will require deep foundations and/or slurry wall construction.

SIDS B7
SIDS
H6 PRW

OVERALL PROJECT SIZE REDUCTION OF 40%
CONGRESS 7 ASSOCIATES
COST ANALYSIS AS OF AUGUST 26, 1986

DATE: 28-Aug-86
Page 1 of 2

CONGRESS 7 ASSOC.	STATS.	PROJ. ITEM AMOUNT	@ CLOSE	10-Sep-86 MONTH 1	10-Oct-86 MONTH 2	10-Nov-86 MONTH 3	10-Dec-86 MONTH 4	10-Jan-87 MONTH 5	10-Feb-87 MONTH 6	10-Mar-87 MONTH 7	10-Apr-87 MONTH 8	10-May-87 MONTH 9	10-Jun-87 MONTH 10	10-Jul-87 MONTH 11	10-Aug-87 MONTH 12	10-Sep-87 MONTH 13	10-Oct-87 MONTH 14	10-Nov-87 MONTH 15
LAND		2,400,000	2,400,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INDIRECT COSTS:																		
(a) Arch/engr survey/misc		3,200,000	2,000,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
(b) Inspection		105,000	0	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375
(c) Real Estate Taxes		120,000	0	0	0	0	0	0	60,000	0	0	0	0	0	0	0	0	0
(d) Insurance		120,000	60,000	0	0	0	0	0	0	0	0	0	0	0	0	60,000	0	0
(e) Permits		210,000	210,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(f) Accounting Services		40,000	0	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667
(g) Transfer Taxes		30,000	30,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h) Title Insurance		60,000	60,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i) Recording		15,000	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(j) Lease Commissions		504,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k) Advertising & Promotion		50,000	16,667	0	0	0	0	0	0	0	0	0	0	0	20,000	0	0	0
(l) Legal fees		500,000	266,667	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(m) Development Fees		1,050,000	0	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750
(n) Contingency; Misc.		150,000	0	0	0	0	0	0	75,000	0	0	0	0	0	0	0	0	0
(o) Project Supervision		300,000	0	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
(p) Project Travel & Exp.		150,000	0	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250
(q) Furniture, Fixtures & Equip.		4,725,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(r) Streetscape Costs		3,500,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350,000
TOTAL INDIRECT COSTS		14,829,000	2,658,333	118,542	118,542	118,542	118,542	118,542	253,542	118,542	118,542	118,542	118,542	118,542	138,542	178,542	118,542	468,542
FINANCE COSTS:																		
(a) Land/Rent		1,680,000	1,680,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b) Broker-Commission		700,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(c) Construction Loan Fees		350,000	350,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d) Interim Finance Costs		680,000	680,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e) Appraisal		75,000	75,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(f) Interim Working Capital		400,000	400,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL FINANCE COSTS		3,885,000	3,185,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		21,114,000	8,243,333	118,542	118,542	118,542	118,542	118,542	253,542	118,542	118,542	118,542	118,542	118,542	138,542	178,542	118,542	468,542
CONSTRUCTION:				1.0%	2.0%	3.0%	3.0%	3.0%	6.0%	6.0%	7.0%	7.0%	6.0%	5.0%	5.0%	5.0%	6.0%	5.0%
(a) Retail/Office (Core) Square Feet = 320,544		29,152,662	0	291,527	583,053	874,580	874,580	874,580	1,749,160	1,749,160	2,040,686	2,040,686	1,749,160	1,457,633	1,457,633	1,457,633	1,749,160	1,457,633
(b) Garage (Incl. in (a)) Square Feet (+ RAMPS) = 60,874																		
(c) Retainage	3.00%	874,580	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d) Tenant Improvements-Office Square Feet = 57,600 Cost p/s/f/ = $10.00		576,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e) Subsurface Extraordinary Construction		3,650,000	0	365,000	365,000	365,000	365,000	365,000	365,000	365,000	365,000	365,000	365,000	0	0	0	0	0
Net 24 mos. Core Const'n.		34,253,242	0	656,527	948,053	1,239,580	1,239,580	1,239,580	2,114,160	2,114,160	2,405,686	2,405,686	2,114,160	1,457,633	1,457,633	1,457,633	1,749,160	1,457,633

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ADD'L RETL/OFC. ALLOWANCE:																		
(a) Office																		
Square Feet =	57,600																	
Cost p/s/f/ =	$7.50	432,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b) Retail																		
Square Feet =	4,800																	
Cost p/s/f/ =	$70.00	336,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal add'l. allow.		768,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESERVE FOR RENT-UP - OFFICE		900,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPECIAL RESERVE - HOTEL LOSS		2,100,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRE-OPENING HOTEL COSTS		1,200,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		4,968,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL (to be disbursed)		60,335,242	8,243,333	775,868	1,066,595	1,358,122	1,358,122	1,358,122	2,367,701	2,232,701	2,524,228	2,524,228	2,232,701	1,576,175	1,596,175	1,636,175	1,867,701	1,926,175
INTEREST RESERVE																		
Funds to be Disbursed		60,335,242	8,243,333	775,868	1,066,595	1,358,122	1,358,122	1,358,122	2,367,701	2,232,701	2,524,228	2,524,228	2,232,701	1,576,175	1,596,175	1,636,175	1,867,201	1,926,175
Previous bal. Disbursed				8,243,333	9,080,227	10,214,923	11,649,657	13,095,151	14,551,486	17,020,323	19,388,737	22,058,381	24,748,047	27,166,358	28,946,281	30,759,553	32,626,424	34,738,824
Est. Int. Rate @	9.00%			61,825	68,102	76,612	87,372	98,214	109,136	127,712	145,416	165,438	185,610	203,748	217,097	230,697	244,698	260,541
Cum. Balance Disbursed				9,080,227	10,214,923	11,649,657	13,095,151	14,551,486	17,020,323	19,388,737	22,058,381	24,748,047	27,166,358	28,946,281	30,759,553	32,626,424	34,738,824	36,925,540
TOTAL INTEREST		5,405,568		61,825	68,102	76,612	87,372	98,214	109,136	127,712	145,416	165,438	185,610	203,748	217,097	230,697	244,698	260,541
TOTAL PROJECT EST. COSTS		65,740,810	8,243,333	836,893	1,134,697	1,434,733	1,445,494	1,456,335	2,476,838	2,360,414	2,669,644	2,689,666	2,418,312	1,779,922	1,813,272	1,866,871	2,112,400	2,186,716

DATE: 28-Aug-86
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CONGRESS 7 ASSOC.	STATS.	10-Dec-87 MONTH 16	10-Jan-88 MONTH 17	10-Feb-88 MONTH 18	10-Mar-88 MONTH 19	10-Apr-88 MONTH 20	10-May-88 MONTH 21	10-Jun-88 MONTH 22	10-Jul-88 MONTH 23	10-Aug-88 MONTH 24	TOTAL COSTS	POST COMPLETION	BUDGET TOTALS
LAND		0	0	0	0	0	0	0	0	0	2,400,000	0	2,400,000
INDIRECT COSTS:													
(a) Arch/engr survey/misc		50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	3,200,000	0	3,200,000
(b) Inspection		4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	105,000	0	105,000
(c) Real Estate Taxes		0	0	60,000	0	0	0	0	0	0	120,000	0	120,000
(d) Insurance		0	0	0	0	0	0	0	0	0	120,000	0	120,000
(e) Permits		0	0	0	0	0	0	0	0	0	210,000	0	210,000
(f) Accounting Services		1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	40,000	0	40,000
(g) Transfer Taxes		0	0	0	0	0	0	0	0	0	30,000	0	30,000
(h) Title Insurance		0	0	0	0	0	0	0	0	0	60,000	0	60,000
(i) Recording		0	0	0	0	0	0	0	0	0	15,000	0	15,000
(j) Lease Commissions		0	0	420,000	0	0	35,000	35,000	35,000	35,000	360,000	(56,000)	304,000
(k) Advertising & Promotion		0	0	0	0	0	0	0	0	0	36,667	13,333	50,000
(l) Legal Fees		0	0	0	38,889	38,889	38,889	38,889	38,889	38,889	500,000	0	500,000
(m) Development Fees		43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	1,050,000	0	1,050,000
(n) Contingency; Misc.		0	0	75,000	0	0	0	0	0	0	150,000	0	150,000
(o) Project Supervision		12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	300,000	0	300,000
(p) Project Travel & Exp.		6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	150,000	0	150,000
(q) Furniture, Fixtures & Equip.		0	0	0	0	0	787,500	787,500	787,500	787,500	3,150,000	1,575,000	4,725,000
(r) Streetscape Costs		350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	3,500,000	0	3,500,000
TOTAL INDIRECT COSTS		468,542	468,542	1,023,542	507,431	507,431	1,329,931	1,329,931	1,329,931	1,329,931	13,296,667	1,532,333	14,829,000
FINANCE COSTS:													
(a) Land/Rent		0	0	0	0	0	0	0	0	0	1,680,000	0	1,680,000
(b) Broker-Commission		0	0	0	0	0	0	0	0	0	0	700,000	700,000
(c) Construction Loan Fees		0	0	0	0	0	0	0	0	0	350,000	0	350,000
(d) Interim Finance Costs		0	0	0	0	0	0	0	0	0	680,000	0	680,000
(e) Appraisal		0	0	0	0	0	0	0	0	0	75,000	0	75,000
(f) Interim Working Capital		0	0	0	0	0	0	0	0	0	400,000	0	400,000
TOTAL FINANCE COSTS		0	0	0	0	0	0	0	0	0	3,185,000	700,000	3,885,000
SUBTOTAL		468,542	468,542	1,023,542	507,431	507,431	1,329,931	1,329,931	1,329,931	1,329,931	18,881,667	2,232,333	21,114,000
CONSTRUCTION:		4.0%	4.0%	4.0%	5.0%	4.0%	4.0%	2.0%	2.0%	1.0%	100.00%		
(a) Retail/Office (Core)													
Square Feet =	320,544	1,166,106	1,166,106	1,166,106	1,457,633	1,166,106	1,166,106	583,053	583,053	291,527	29,152,662	0	29,152,662
(b) Garage (Incl. in (a))													
Square Feet (+ RAMPS) =	60,894												
(c) Retainage	3.00%	0	0	0	0	0	0	0	0	0	0	874,580	874,580
(d) Tenant Improvements-Office													
Square Feet =	57,600												
Cost p/s/f/ =	$10.00	0	0	0	0	0	0	0	0	0	0	576,000	576,000
(e) Subsurface Extraordinary Construction		0	0	0	0	0	0	0	0	0	3,650,000	0	3,650,000
Net 24 mos. Core Const'n. SUBTOTAL		1,166,106	1,166,106	1,166,106	1,457,633	1,166,106	1,166,106	583,053	583,053	291,527	32,802,662	1,450,580	34,253,242

(a) Office													
Square Feet =	57,600												
Cost p/s/f/ =	$7.50	0	54,000	54,000	54,000	54,000	54,000	54,000	54,000	54,000	432,000	0	432,000
(b) Retail													
Square Feet =	4,000												
Cost p/s/f/ =	$70.00	0	0	0	56,000	56,000	56,000	56,000	56,000	56,000	336,000	0	336,000
Subtotal add'l. allow.		0	54,000	54,000	110,000	110,000	110,000	110,000	110,000	110,000	768,000	0	768,000
RESERVE FOR RENT-UP - OFFICE		0	0	0	0	0	0	0	0	0	0	900,000	900,000
SPECIAL RESERVE - HOTEL LOSS		0	0	0	0	0	0	0	0	0	0	2,100,000	2,100,000
PRE-OPENING HOTEL COSTS		0	0	0	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000	0	1,200,000
SUBTOTAL		0	54,000	54,000	310,000	310,000	310,000	310,000	310,000	310,000	1,968,000	3,000,000	4,968,000
SUBTOTAL (to be disbursed)		1,634,640	1,688,640	2,243,640	2,275,064	1,983,537	2,806,037	2,222,984	2,222,984	1,931,457	53,652,329	6,682,913	60,335,242
INTEREST RESERVE													
Funds to be Disbursed		1,634,640	1,688,640	2,243,640	2,275,064	1,983,537	2,806,037	2,222,984	2,222,984	1,931,457			
Previous bal. Disbursed		36,925,540	38,837,129	40,817,056	43,366,832	45,967,147	48,295,437	51,463,690	54,072,652	56,701,180			
Est. Int. Rate @	9.00%	276,942	291,278	306,128	325,251	344,754	362,216	385,978	405,545	425,259			
Cum. Balance Disbursed		38,837,129	40,817,056	43,366,832	45,967,147	48,295,437	51,463,690	54,072,652	56,701,180	59,057,896			
TOTAL INTEREST		276,942	291,278	306,128	325,251	344,754	362,216	385,978	405,545	425,259	5,405,560	0	5,405,560
TOTAL PROJECT EST. COSTS		1,911,590	1,979,927	2,549,776	2,600,315	2,328,291	3,168,253	2,608,961	2,628,529	2,356,716	59,057,896	6,682,913	65,740,810

ALTERNATE SCHEME B DELETION OF 99 HOTEL ROOMS, 150 AUTOS, AND THE ENTIRE OFFICE BUILDING, PARCEL 7, GOVERNMENT CENTER, BOSTON, MASSACHUSETTS

	1989 (9 mos)	1990	1991
Revenues:			
Rooms	3,344,381	4,947,513	5,631,724
Foods & Beverage	1,629,468	2,446,428	2,816,666
Telephone	107,191	162,120	186,920
Minor Operations (Health Club, Retail, etc.)	66,593	99,660	114,816
Public Room Sales	57,408	85,882	98,714
TOTAL	5,205,041	7,741,603	8,848,867
Department Costs & Expenses:			
Rooms	876,227	1,177,508	1,227,715
Food & Beverage	1,391,566	2,030,536	2,278,683
Telephone	102,530	154,013	177,888
TOTAL	2,370,323	3,362,057	3,684,286
Gross Operating Income:	2,834,718	4,379,546	5,164,581
Undistributed Operating Expenses:			
Administrative & General	411,256	557,077	575,176
Basic Management Fee	208,231	309,663	353,954
Franchise Fee	197,819	294,101	336,257
Marketing	192,614	255,472	256,617
Energy	234,069	335,889	371,652
Property Operation & Management	223,848	324,705	362,803
TOTAL	1,467,837	2,076,907	2,256,459
Cash Flow Available for Fixed Charges, Replacement of Fixed Assets, Incentive Fees, Debt Service, Linkage and Distributions to Owners:	1,366,881	2,302,639	2,908,122

PARCEL 7 GARAGE
INCOME AND EXPENSES
225 SPACES - VALET PARKING (72,066 SQ. FT.)

	1989 (9 mos)	1990	1991
Income:			
10 spaces - no charges (Used by Hotel Management) 1,170 autos x $0.00 =	0	0	0
56 spaces - utilized by hotel guests @ $4.00 per night for first year (See Statistics below) 9,750 autos x $4.00 =	39,000	43,875	48,750
159 spaces - utilized by the public @ $8.00 per day 260 days x $8.00 x 159 =	330,720	351,390	372,060
25% of publicly used spaces (159) x 4 hours per day @ $1.50 per hour =			
40 spaces x $6.00 per day x 260 days =	62,712	73,164	83,616
15% of publicly used spaces (159) @ $4.00 per day each weekend (104 days) 159 spaces x $4.00 per day x 104 days =	66,144	74,412	82,680
TOTAL	498,576	542,841	587,106
Expense:			
Payroll			
Managers (3) @ $21,000 Plus 26% fringe = $26,460 per year per manager =	79,380	84,143	89,192
Parkers - 4-day shift 4 - 4:00pm to 12:00am 2 - 12:00am to 8:00am @ 5 days, 6 weekends 2 days All at $5.00/hour + 26% fringe	121,867	172,224	182,557

Cleaning - contract (sweep, etc.)	26,000	27,560	29,136
Security			
a) Television - contract	16,125	17,093	18,119
b) One Jeep - amortized over 4 years and insurance 3 men @ $5.00/hour plus 26% fringes @ $6.30/hour	55,188	58,499	62,009
Insurance			
Fire, extended coverage, liability and garage package @ $.47 per sq. ft.	28,620	30,337	32,157
Miscellaneous - accounting, legal, permits, etc.	25,000	26,500	28,090
Real Estate Tax	75,000	79,500	84,270
Utilities	18,000	18,600	20,225
TOTAL	385,803	514,456	545,755
Net for Debt and Distribution to Owners:	53,396	28,385	41,351

STATISTICS

Expenses will increase 6% per year. Income will increase $.25 per hour per year except in the case of overnight garage accommodation in which case it will increase $.50 per day, and in the case of all day parkers in which case it will increase by $.50 per day.

GOVERNMENT CENTER - PARCEL 7
BOSTON, MASSACHUSETTS
OFFICE BUILDING PRO-FORMA

	1989 (9 mos)	1990	1991
Income:			
Office - 0 sq. ft. @ $0 per sq. ft.	0	0	0
Retail - 0 sq. ft. @ $0 per sq. ft.	0	0	0
TOTAL GROSS INCOME	0	0	0
Expenses:			
Not applicable	0	0	0
TOTAL EXPENSES	0	0	0
Net for Debt and Owners Distribution:	0	0	0
Conclusion:			
Total Project Cost: (See Proforma)	66,022,490		
Net Income for Debt Service and Distribution to Owners:			
Hotel	787,235	1,469,822	2,055,254
Garage	53,396	28,385	41,351
TOTAL	840,631	1,498,207	2,096,605
Percentage return on investment:	1.2732%	2.2690%	3.1750%
	1.2732	2.2692	3.1756

40% OVERALL REDUCTION OF
PROPOSED STATEMENT OF INCOME & EXPENSE
375-ROOM HOTEL, PARCEL 7, GOVERNMENT CENTER
BOSTON, MASSACHUSETTS

1989	1990	1991

NOTES TO DELETION OF OFFICE BUILDING ENTIRELY, 99 HOTEL ROOMS AND 29,424 SQ. FT. OF GARAGE AREA AT PARCEL 7, BOSTON, MASSACHUSETTS

Indirect Costs:

j. Delete - we will not be requested to pay commissions, since we are no longer constructing the office building.

q. Deduct $6,000 per room for 99 deleted rooms. Balance for FF&E = $5,031,000.

Financial Costs:

Same as 40% overall deletion.

Construction: Hotel to contain 276 rooms and 248,478 sq. ft.

Garage to contain 72,166 sq. ft.

Fixed Charges:			
Property Taxes	270,700	387,080	398,198
Insurance	104,115	131,609	132,733
TOTAL	374,815	518,689	530,931
Cash Flow Available for Replacement of Fixed Assets, Incentive Management Fee, Linkage, Debt Service and Distribution to Owners:	992,066	1,783,950	2,377,191
Replacement of Fixed Assets	104,115	213,412	221,221
Linkage (322,250 sq. ft. - 100,000 sq. ft. = 222,250 sq. ft. x $6/sq. ft./7 yrs =	100,716	100,716	100,716
TOTAL	204,831	314,128	321,937
Cash Flow Available for Incentive Management Fee, Debt Service and Distribution to Owners:	787,235	1,469,822	2,055,254

Incentive fee is 25% of Net Cash Flow after Debt Service. In this case, there will be no Net Cash Flow after Debt Service for the foreseeable future.

STATISTICS:

Percentage of Occupancy	63%	68%	75%
Number of Occupied Rooms	65,000	92,976	102,024
Average Room Rate	$116.00	$120.50	$125.50

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A/E DEVEL 86, INSP. / PROJ

DELETION OF OFFICE BUILDING AND
PARTIAL DELETION OF GARAGE (72066 sq.ft. TO REMAIN) AND HOTEL 1276 ROOMS TO REMAIN)
CONGRESS 7 ASSOCIATES
COST ANALYSIS AS OF AUGUST 26, 1986

DATE: 28-Aug-86
Page 1 of 2

CONGRESS 7 ASSOC.	STATS.	PROJ.ITEM AMOUNT	@ CLOSE	10-Sep-86 MONTH 1	10-Oct-86 MONTH 2	10-Nov-86 MONTH 3	10-Dec-86 MONTH 4	10-Jan-87 MONTH 5	10-Feb-87 MONTH 6	10-Mar-87 MONTH 7	10-Apr-87 MONTH 8	10-May-87 MONTH 9.	10-Jun-87 MONTH 10	10-Jul-87 MONTH 11	10-Aug-87 MONTH 12	10-Sep-87 MONTH 13	10-Oct-87 MONTH 14	10-Nov-87 MONTH 15
LAND		2,400,000	2,400,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
INDIRECT COSTS:																		
(a) Arch/engr survey/misc		3,200,000	2,000,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000
(b) Inspection		105,000	0	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375
(c) Real Estate Taxes		120,000	0	0	0	0	0	0	60,000	0	0	0	0	0	0	0	0	0
(d) Insurance		120,000	60,000	0	0	0	0	0	0	0	0	0	0	0	0	60,000	0	0
(e) Permits		210,000	210,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(f) Accounting Services		40,000	0	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667
(g) Transfer Taxes		30,000	30,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(h) Title Insurance		60,000	60,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(i) Recording		15,000	15,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(j) Lease Commissions		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(k) Advertising & Promotion		50,000	16,667	0	0	0	0	0	0	0	0	0	0	0	20,000	0	0	0
(l) Legal fees		500,000	266,667	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(m) Development Fees		1,050,000	0	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750
(n) Contingency; Misc.		150,000	0	0	0	0	0	0	75,000	0	0	0	0	0	0	0	0	0
(o) Project Supervision		300,000	0	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500
(p) Project Travel & Exp.		150,000	0	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250
(q) Furniture, Fixtures & Equip.		5,031,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(r) Streetscape Costs		3,500,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	350,000
TOTAL INDIRECT COSTS		14,631,000	2,658,333	118,542	118,542	118,542	118,542	118,542	253,542	118,542	118,542	118,542	118,542	118,542	138,542	178,542	118,542	468,542
FINANCE COSTS:																		
(a) Land/Rent		1,680,000	1,680,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b) Broker-Commission		780,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(c) Construction Loan Fees		350,000	350,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d) Interim Finance Costs		600,000	600,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e) Appraisal		75,000	75,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(f) Interim Working Capital		400,000	400,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL FINANCE COSTS		3,885,000	3,105,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		20,916,000	8,243,333	118,542	118,542	118,542	118,542	118,542	253,542	118,542	118,542	118,542	118,542	118,542	138,542	178,542	118,542	468,542
CONSTRUCTION:				1.0%	2.0%	3.0%	3.0%	3.0%	6.0%	6.0%	7.0%	7.0%	6.0%	5.0%	5.0%	5.0%	6.0%	5.0%
(a) Hotel & Garage																		
Square Feet =	320,544	30,915,263	0	309,153	618,305	927,458	927,458	927,458	1,854,916	1,854,916	2,164,068	2,164,068	1,854,916	1,545,763	1,545,763	1,545,763	1,854,916	1,545,763
(b) Garage (Incl. In (a))																		
Square Feet =	72,066																	
(c) Retainage	3.00%	927,458	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(d) Tenant Improvements-Office																		
Square Feet =	0																	
Cost p/s/f/ =	40.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(e) Subsurface Extraordinary Construction		3,650,000	0	365,000	365,000	365,000	365,000	365,000	365,000	365,000	365,000	365,000	365,000	0	0	0	0	0
Net 24 mos. Core Const'n.		35,492,721	0	674,153	983,305	1,292,458	1,292,458	1,292,458	2,219,916	2,219,916	2,529,068	2,529,068	2,219,916	1,545,763	1,545,763	1,545,763	1,854,916	1,545,763

why N. [illegible] ?

SUBTOTAL																		
ADD'L RETL/OFC. ALLOWANCE:																		
(a) Office																		
Square Feet =	. 0																	
Cost p/s/f/ =	$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
(b) Retail																		
Square Feet =	0																	
Cost p/s/f/ =	$0.00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal add'l. allow.		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RESERVE FOR RENT-UP - OFFICE		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SPECIAL RESERVE - HOTEL LOSS		2,579,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PRE-OPENING HOTEL COSTS		1,474,000	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL		4,053,500	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
SUBTOTAL (to be disbursed)		60,462,221	8,243,333	792,694	1,101,847	1,411,000	1,411,000	1,411,000	2,473,457	2,338,457	2,647,610	2,647,610	2,338,457	1,664,305	1,684,305	1,724,305	1,973,457	2,014,305
INTEREST RESERVE																		
Funds to be Disbursed		60,462,221	8,243,333	792,694	1,101,847	1,411,000	1,411,000	1,411,000	2,473,457	2,338,457	2,647,610	2,647,610	2,338,457	1,664,305	1,684,305	1,724,305	1,973,457	2,014,305
Previous bal. Disbursed				8,243,333	9,097,853	10,267,933	11,755,943	13,255,112	14,765,525	17,349,723	19,818,304	22,614,551	25,431,770	27,960,966	29,834,978	31,743,045	33,705,423	35,931,671
Est. Int. Rate @	9.00%			61,825	68,234	77,010	88,170	99,413	110,741	130,123	148,637	169,609	190,738	209,707	223,762	238,073	252,791	269,488
Cum. Balance Disbursed				9,097,853	10,267,933	11,755,943	13,255,112	14,765,525	17,349,723	19,818,304	22,614,551	25,431,770	27,960,966	29,834,978	31,743,045	33,705,423	35,931,671	38,215,463
TOTAL INTEREST		5,560,269		61,825	68,234	77,010	88,170	99,413	110,741	130,123	148,637	169,609	190,738	209,707	223,762	238,073	252,791	269,488
TOTAL PROJECT EST. COSTS		66,022,490	8,243,333	854,519	1,170,081	1,488,009	1,499,169	1,510,413	2,584,199	2,468,580	2,796,247	2,817,219	2,529,196	1,874,012	1,908,067	1,962,378	2,226,248	2,283,792

CONGRESS 7 ASSOC.	STATS.	10-Dec-87 MONTH 16	10-Jan-88 MONTH 17	10-Feb-88 MONTH 18	10-Mar-88 MONTH 19	10-Apr-88 MONTH 20	10-May-88 MONTH 21	10-Jun-88 MONTH 22	10-Jul-88 MONTH 23	10-Aug-88 MONTH 24	TOTAL COSTS	POST COMPLETION	BUDGET TOTALS
LAND		0	0	0	0	0	0	0	0	0	2,400,000	0	2,400,000
INDIRECT COSTS:													
(a) Arch/engr survey/misc		50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	50,000	3,200,000	0	3,200,000
(b) Inspection		4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	4,375	105,000	0	105,000
(c) Real Estate Taxes		0	0	60,000	0	0	0	0	0	0	120,000	0	120,000
(d) Insurance		0	0	0	0	0	0	0	0	0	120,000	0	120,000
(e) Permits		0	0	0	0	0	0	0	0	0	210,000	0	210,000
(f) Accounting Services		1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	1,667	40,000	0	40,000
(g) Transfer Taxes		0	0	0	0	0	0	0	0	0	30,000	0	30,000
(h) Title Insurance		0	0	0	0	0	0	0	0	0	60,000	0	60,000
(i) Recording		0	0	0	0	0	0	0	0	0	15,000	0	15,000
(j) Lease Commissions		0	0	420,000	0	0	35,000	35,000	35,000	35,000	560,000	(560,000)	0
(k) Advertising & Promotion		0	0	0	0	0	0	0	0	0	36,667	13,333	50,000
(l) Legal fees		0	0	0	38,889	38,889	38,889	38,889	38,889	38,889	500,000	0	500,000
(m) Development Fees		43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	43,750	1,050,000	0	1,050,000
(n) Contingency; Misc.		0	0	75,000	0	0	0	0	0	0	150,000	0	150,000
(o) Project Supervision		12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	12,500	300,000	0	300,000
(p) Project Travel & Exp.		6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	6,250	150,000	0	150,000
(q) Furniture, Fixtures & Equip.		0	0	0	0	0	838,500	838,500	838,500	838,500	3,354,000	1,677,000	5,031,000
(r) Streetscape Costs		350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	350,000	3,500,000	0	3,500,000
TOTAL INDIRECT COSTS		468,542	468,542	1,023,542	507,431	507,431	1,380,931	1,380,931	1,380,931	1,380,931	13,500,667	1,130,333	14,631,000
FINANCE COSTS:													
(a) Land/Rent		0	0	0	0	0	0	0	0	0	1,600,000	0	1,600,000
(b) Broker-Commission		0	0	0	0	0	0	0	0	0	0	700,000	700,000
(c) Construction Loan Fees		0	0	0	0	0	0	0	0	0	350,000	0	350,000
(d) Interim Finance Costs		0	0	0	0	0	0	0	0	0	680,000	0	680,000
(e) Appraisal		0	0	0	0	0	0	0	0	0	75,000	0	75,000
(f) Interim Working Capital		0	0	0	0	0	0	0	0	0	400,000	0	400,000
TOTAL FINANCE COSTS		0	0	0	0	0	0	0	0	0	3,105,000	700,000	3,805,000
SUBTOTAL		468,542	468,542	1,023,542	507,431	507,431	1,380,931	1,380,931	1,380,931	1,380,931	19,005,667	1,830,333	20,916,000
CONSTRUCTION:		4.0%	4.0%	4.0%	5.0%	4.0%	4.0%	2.0%	2.0%	1.0%	100.00%		
(a) Hotel & Garage													
Square Feet =	320,544	1,236,611	1,236,611	1,236,611	1,545,763	1,236,611	1,236,611	618,305	618,305	309,153	30,915,263	0	30,915,263
(b) Garage [Incl. in (a)]													
Square Feet =	72,066												
(c) Retainage	3.00%	0	0	0	0	0	0	0	0	0	0	927,458	927,458
(d) Tenant Improvements-Office													
Square Feet =	0												
Cost p/s/f/ =	$0.00	0	0	0	0	0	0	0	0	0	0	0	0
(e) Subsurface Extraordinary Construction		0	0	0	0	0	0	0	0	0	3,650,000	0	3,650,000
Net 24 mos. Core Const'n.		1,236,611	1,236,611	1,236,611	1,545,763	1,236,611	1,236,611	618,305	618,305	309,153	34,565,263	927,458	35,492,721

SUBTOTAL													
ADD'L RETL/OFC. ALLOWANCE:													
(a) Office													
Square Feet =	0												
Cost p/s/f/ =	$0.00	0	0	0	0	0	0	0	0	0	0	0	0
(b) Retail													
Square Feet =	0												
Cost p/s/f/ =	$0.00	0	0	0	0	0	0	0	0	0	0	0	0
Subtotal add'l. allow.		0	0	0	0	0	0	0	0	0	0	0	0
RESERVE FOR RENT-UP - OFFICE		0	0	0	0	0	0	0	0	0	0	0	0
SPECIAL RESERVE - HOTEL LOSS		0	0	0	0	0	0	0	0	0	0	2,579,500	2,579,500
PRE-OPENING HOTEL COSTS		0	0	0	245,667	245,667	245,667	245,667	245,667	245,667	1,474,000	0	1,474,000
SUBTOTAL		0	0	0	245,667	245,667	245,667	245,667	245,667	245,667	1,474,000	2,579,500	4,053,500
SUBTOTAL (to be disbursed)		1,705,152	1,705,152	2,260,152	2,298,860	1,989,708	2,863,208	2,244,902	2,244,902	1,935,750	55,124,930	5,337,291	60,462,221
INTEREST RESERVE													
Funds to be Disbursed		1,705,152	1,705,152	2,260,152	2,298,860	1,989,708	2,863,208	2,244,902	2,244,902	1,935,750			
Previous bal. Disbursed		38,215,463	40,207,232	42,213,938	44,790,695	47,425,485	49,770,884	53,007,374	55,649,831	58,312,108			
Est. Int. Rate @	9.00%	286,616	301,554	316,605	335,930	355,691	373,282	397,555	417,374	437,341			
Cum. Balance Disbursed		40,207,232	42,213,938	44,790,695	47,425,485	49,770,884	53,007,374	55,649,831	58,312,108	60,685,198			
TOTAL INTEREST		286,616	301,554	316,605	335,930	355,691	373,282	397,555	417,374	437,341	5,560,269	0	5,560,269
TOTAL PROJECT EST. COSTS		1,991,768	2,006,706	2,576,757	2,634,791	2,345,399	3,236,489	2,642,458	2,662,276	2,373,091	60,685,198	5,337,291	66,022,490

Appendix G Permits Required for the Project

Permits Required for the Project

The project proponent anticipates that the following State permits will be required for the Project:

Sewer connection permit from the Divsion of Water Pollution Control, Department of Environmental Quality Engineering ("DEQE").

Industrial User Permit or preliminary approval of discharge from the Massachusetts Water Resources Authority.

Approval of fossil fuel utilization facility for emergency generator from and registration of the fossil fuel utilization facility with the Division of Air Quality Control, DEQE, if the energy input capacity of the fossil fuel utilization facilities within the project exceeds 3,000,000 B.t.u. per hour.

Variances from the Architectural Barriers Board, if necessary.

Tidelands License from DEQE.

Massachusetts Historical Commission concurrence that the project will not have an adverse effect upon State Register Property.

BAPC C

Under this alternative, the various urban design goals embodied in the BRA's extensive development guidelines would not be achieved, and a substantial number of public improvements such as new paving along Hanover Street, a new median strip along New Congress Street, and various pushcart related amenities, would not be constructed.

The revised scoping decision of the Secretary of Environmental Affairs dated July 7, 1986, as described in a letter dated September 16, 1986 from Steven Davis, Assistant Secretary, Environmental Impact Review, directed the project proponent to study, as an alternative, a project reduced in scope. In considering alternatives in response to that request, the proponent with awareness of comments regarding the scope of the project, first analyzed whether an apparent reduction in scope could be achieved by remassing. However, the design of the project is subject to numerous restrictions and constraints on development, including present site conditions and requirements established by the Boston Redevelopment Authority, which preclude any significant remassing:

> Soil Conditions. The project site consists almost entirely of filled land, the fill having been emplaced during the nineteenth century to displace the Mill Pond, so called. The water table on the site is encountered at approximately 10 feet below the current surface grade. Any structure of more than three stories on the project site must be supported by deeply emplaced piles or caissons. In addition to such structural support, excavation for below grade uses requires that the entire site be enclosed within a slurry wall to block the inflow of ground water.
>
> Subway Tunnels. The northwest quadrant of the project site is encumbered by below grade easements for the existing Orange Line and Green Line subway tunnels. Above grade construction

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